38th EPOS Annual Meeting
European Paediatric Orthopaedic Society

3rd - 6th April, 2019
Tel Aviv – Israel

SCIENTIFIC PROGRAM
# Program at a Glance

## Wednesday April 3rd

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>12:00 - 14:20</td>
<td>Precourse CLUBFOOT</td>
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<tr>
<td>14:20 - 15:00</td>
<td>Coffee break</td>
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<tr>
<td>15:00 - 17:00</td>
<td>Precourse CLUBFOOT</td>
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<tr>
<td>19:00 - 20:00</td>
<td>Welcome Ceremony</td>
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<tr>
<td>20:00</td>
<td>Welcome Reception at the Congress Venue</td>
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## Thursday April 4th

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>08:00 - 08:20</td>
<td>Opening Ceremony</td>
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<tr>
<td>08:20 - 09:26</td>
<td>BASIC SCIENCE</td>
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<tr>
<td>09:26 - 10:15</td>
<td>SPORTS MEDICINE</td>
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<tr>
<td>10:16 - 10:45</td>
<td>Coffee break</td>
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<tr>
<td>10:46 - 12:01</td>
<td>DDH</td>
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<tr>
<td>12:01 - 12:57</td>
<td>TUMOURS</td>
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<tr>
<td>12:57 - 14:00</td>
<td>Lunch</td>
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### Grand Ballroom A

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>14:00 - 15:00</td>
<td>K2M Industry Symposium</td>
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### Grand Ballroom B

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>15:00 - 16:15</td>
<td>TRAUMA</td>
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<tr>
<td>16:15 - 16:47</td>
<td>FOOT</td>
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### King Solomon AB

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>15:00 - 15:50</td>
<td>KNEE</td>
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<tr>
<td>15:50 - 16:40</td>
<td>SPINE 1</td>
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</tbody>
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### King Solomon C

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>17:10 - 17:59</td>
<td>CLUB FOOT</td>
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<tr>
<td>17:59 - 18:59</td>
<td>MEET THE MENTOR</td>
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19:00 Welcome reception offered by Tel Aviv Municipality
## PROGRAM AT A GLANCE

### FRIDAY APRIL 5TH

<table>
<thead>
<tr>
<th>Time</th>
<th>Grand Ballroom AB</th>
<th>King Solomon AB</th>
<th>King Solomon C</th>
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<tbody>
<tr>
<td>07:30 - 08:19</td>
<td>SPINE 2</td>
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<tr>
<td>08:20 - 09:09</td>
<td>SPINE 3</td>
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<tr>
<td>09:10 - 09:35</td>
<td>INFECTION</td>
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<tr>
<td>09:35 - 10:24</td>
<td>BEST OF THE BEST</td>
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<tr>
<td>10:25 - 11:00</td>
<td>Coffee break</td>
<td>General Assembly I</td>
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<tr>
<td>11:00 - 12:00</td>
<td>Lunch</td>
<td>General Assembly II</td>
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<tr>
<td>13:00 - 14:30</td>
<td>OrthoPediatrics Industry Symposium</td>
<td>NuVasive Industry Symposium</td>
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<tr>
<td>14:30 - 16:30</td>
<td>EPOS STUDY GROUP Cerebral Palsy and Spinal Deformity</td>
<td>EPOS STUDY GROUP Hip and lower limb in skeletal dysplasia and metabolic diseases</td>
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<tr>
<td>16:30 - 17:00</td>
<td>Coffee break</td>
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<tr>
<td>17:00 - 19:00</td>
<td>Sports Medicine</td>
<td>EPOS STUDY GROUP Musculoskeletal Tumours, Infections &amp; Arthritis Group</td>
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<tr>
<td>20:30</td>
<td>Congress Dinner</td>
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### SATURDAY APRIL 6TH

<table>
<thead>
<tr>
<th>Time</th>
<th>Grand Ballroom AB</th>
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<tbody>
<tr>
<td>08:00 - 08:49</td>
<td>UPPER LIMB</td>
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<tr>
<td>08:50 - 09:47</td>
<td>NEUROMUSCULAR</td>
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<tr>
<td>09:48 - 10:13</td>
<td>PRESIDENTIAL GUEST LECTURE</td>
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<tr>
<td>10:13 - 10:18</td>
<td>AWARDS 2019</td>
</tr>
<tr>
<td>10:18 - 10:28</td>
<td>PRO MAXIMIS MERITIS</td>
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<tr>
<td>10:28 - 10:53</td>
<td>PRESIDENCY TRANSFER</td>
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<tr>
<td>10:53 - 11:30</td>
<td>Coffee break</td>
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<tr>
<td>11:30 - 12:52</td>
<td>CONGENITAL</td>
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<tr>
<td>12:53 - 13:00</td>
<td>CLOSING REMARKS</td>
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</tbody>
</table>
12.00  Introduction  
**Stephanie Böhm** (Sweden)

12.10  Genetics update for clubfoot  
**Matthew Dobbs** (USA)

12.20  Current research news from Iowa including tips and tricks in Clubfoot treatment  
**Jose Morcuende** (USA)

12.30  The significance of foot size at the initiation of Ponseti protocol  
**Yoram Hemo** (Israel)

12.40  What I learned during the years about clubfoot – to do and not to do  
**Jose Morcuende** (USA)

12.50  My approach… to perform the tenotomy  
**Naomi Davis** (United Kingdom)

13.00  Discussion

13.20  Bracing protocol in clubfoot especially in the first year  
**Yoram Hemo** (Israel)

13.30  Bracing – 3,4 or up to 5 years of age ? – pros and cons  
**Cristina Alves** (Portugal)

13.40  Discussion

13.50  Treating arthrogrypotic clubfeet – what’s different  
**Harold van Bosse** (USA)

14.00  My approach … to treat complex clubfeet  
**Harold van Bosse** (USA)

14.10  Discussion

14.20  Coffee break
12.00 PRECOURSE: CLUBFOOT
17.00

15.00 Treatment of severe neglected clubfoot
   Mark Eidelman (Israel)

15.10 Treatment of rigid equinus in older children and adolescents
   Mark Eidelman (Israel)

15.20 Adjunctive surgeries
   John Herzenberg (USA)

15.30 Discussion

15.40 The PBS score
   Stephanie Böhm (Sweden)

15.50 Neurodevelopmental difficulties in children with idiopathic clubfoot
   Elin Lööf (Sweden)

16.00 The most challenging case I ever had…
   Cristina Alves (Portugal), Matthew Dobbs (USA)

16.20 Discussion

16.30 The work of Fred Dietz
   Naomi Davis (Sweden)

16.40 Worldwide spread of the Ponseti method
   John Herzenberg (USA)

16.50 Closing Remarks
   Stephanie Böhm (Sweden)
08:00  OPENING CEREMONY

GRAND BALLROOM AB

08:20  BASIC SCIENCE
GRAND BALLROOM AB

08:20 Chairs: Franck Accadbled (France) and Deborah Eastwood (United Kingdom)
E-Moderator: Ralph J.B. Sakkers (Netherlands)

08:20 Cell death mechanisms are regulated by hyperbaric oxygen therapy following
experimental spinal cord injury
Murat Celal Sozbilen, Huseyin Gunay, Murat Ozturk, Taner Dagci,
Halit Ozyalcin, Guliz Armagan (Turkey)

08:25 Behavior of intramedullary implants across the distal femoral growth plate: preliminary
results from a sheep model
Chang-Yeon Kim, Derrick Knapik, Lewis Zirkle, Raymond Liu (United States)

08:30 The results of cartilage damage treatment using growth plate chondrocytes on the
growing animal model
Ryszard Tomaszewski, Łukasz Wiktor, Artur Gap (Poland)

08:35 Can real time monitoring with a controlled advancement drill decrease plunge depth?
Blake Wallace, Alexander Cherkashin, Mikhail Samchikov, Robert Wimberly,
Anthony Riccio (United States)

08:40 Discussion

08:53 Linkage analysis in a national series of patients affected by non syndromic severe clubfoot
Daniela Dibello, Valentina Di Carlo, Flavio Faletra, Adamo Pio D’Adamo, Maurizio
De Pellegrin, Costantina Racano, Ignazio D’Addetta, Sergio Monforte (Italy)

08:58 The effect of relaxin on primary fibroblast-like cells isolated from clubfoot tissue
Jarmila Knitlova, Martina Doubkova, Tomas Novotny, Adam Eckhardt, Martin
Ostadal (Czech Republic)

09:03 Safety potential of physeal biopsy in a rabbit model
Peter Stevens, Tyler Epperson, Nicholas Taylor, Dustin Williams (United States)

09:08 Dynamic three-dimensional reconstruction of thoracic cage and abdomen in children and
adolescents with scoliosis: results of optical reflective motion analysis assessment
Federico Canavese¹, Fuxing Xun², Yiqiang Li², André Kaelin³, Alain Dimeglio¹,
Hongwen Xu (¹France, ²China, ³Switzerland)

09:13 Discussion
09:26 **SPORTS MEDICINE**

**GRAND BALLROOM AB**

10:15 Chairs: Jorge Knörr (Spain) and Nicolas Nicolaou (United Kingdom)
E-Moderator: Moshe Yaniv (Israel)

09:26 The influence of general physical health and socioemotional status on the outcomes following meniscus repair procedure in patients under 18 years

*Viktorija Brogaitė Martinkienė, Andrius Šaikus, Andrius Brazaitis, Giedrius Bernotavičius* (Lithuania)

09:31 Prevalence of ramp meniscal lesions associated with ACL injury in children and adolescents

*Isabelle Bernardini, Camille Thévenin Lemoine, Daniel N'Dele, Jérôme Sales de Gauzy, Franck Accadbled* (France)

09:36 An all-inside arthroscopic posterior cruciate ligament (PCL) reconstruction technique for children

*Daniel N'Dele, Kepa Iglesias, Jérôme Sales De Gauzy, Camille Thévenin-Lemoine, Franck Accadbled* (France)

09:41 Discussion

09:51 Clinical outcome after arthroscopic debridement and microfracture for osteochondritis dissecans of the capitellum

*Rens Bexkens¹, Kim van den Ende¹, Paul Ogink², Christiaan van Bergen¹, Michel van den Bekerom¹, Denise Eygendaal¹* (¹Netherlands, ²United States)

09:56 Long term results of surgical treatment of juvenile osteochondritis dissecans of the knee by arthroscopic fixation with bioabsorbable implants

*Ioannes Melas, Dimitrios Metaxiotis, Michael Iosifidis* (Greece)

10:01 Level of sports competition is associated with increased yearly incidence of back pain in 3,891 American children and adolescents

*Roger Widmann, Madison Heath, Jonathan Schachne, Colleen Wixted, Daniel Green, Shevaun Doyle, Peter Fabricant* (United States)

10:05 Discussion

10:16 Coffee break
Comparison between the Pavlik Harness and the Tübingen splint for the treatment of developmental dysplasia of the hip in infants

Xuemin Lyu, Min Lu (China)

The complication rate for treatment of developmental dysplasia of the hip with the Pavlik Harness

Pablo Castañeda¹, Carlos Vidal² (¹United States, ²Mexico)

Predictors of avascular necrosis of the femoral head following closed or open reduction in the treatment of developmental dysplasia of the hip

Emily Schaeffer¹, Jeffrey Bone¹, Wubdhav Sankar¹, Travis Matheney², Kishore Mulpuri¹ (¹Canada, ²United States)

Effect of age on radiographic outcomes of patients aged 6 to 24 months with developmental dysplasia of the hip treated by closed reduction

Yiqiang Li¹, Yanhan Liu¹, Jingchun Li¹, Yuanzhong Liu¹, Bruno Pereira², Federico Canavese³, Hongwen Xu¹ (¹China, ²France)

Acetabular indices in children at risk of developmental dysplasia of the hip: time for new references?

Sayeed Ahmed Khan, Hassaan Qaiser Sheikh, Venla Kontala, James A Fernandes, Nicolas Nicolaou³ (United Kingdom)

Factors affecting the outcome of open reduction for developmental dysplasia of the hip performed over the age of 18 months

Avi Marks, Tom Southorn, Dror Maor, Aresh Hashemi-Nejad, Andreas Roposch (United Kingdom)

Dega transiliac osteotomy in the developmental dislocation of the hip: long-time outcome in patients treated when older than 5 y.o.

Łukasz Wozniak, Marek Jozwiak, Maciej Idzior (Poland)

Significance of asymmetry of groin/thigh creases in developmental dysplasia of the hip revisited; a myth or a fact?

Hakan Ömeroglu, Erdem Tatlici, Nusret Köse (Turkey)
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speakers</th>
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<tbody>
<tr>
<td>12:01</td>
<td>TUMORS</td>
<td>Chairs: Alain Di Meglio (France) and Bjarne Moller-Madsen (Denmark) E-Moderator: Robert Elbaum (Belgium)</td>
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<tr>
<td>12:06</td>
<td>Pelvic ring reconstruction with a double-barreled free vascularized fibula graft after resection of pediatric pelvic bone sarcomas</td>
<td>Bulent Erol, Osman Mert Topkar, Tolga Onay, Said Erkam Baykam, Servet Iğrek, Cihangir Tetik (Turkey)</td>
</tr>
<tr>
<td>12:06</td>
<td>Free fibula reconstruction of distal tibial osteoarticular defects after sarcoma surgery</td>
<td>Bulent Erol, Fevzi Sağlam, Ahmet Hamdi Akgülle, Said Erkam Baykam, Servet Iğrek, Cihangir Tetik (Turkey)</td>
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<tr>
<td>12:11</td>
<td>Intramedullary fixation of double barrel vascularised fibula grafts with subsequent femoral lengthening for reconstruction of the distal femur in osteosarcoma patients</td>
<td>Ulrich Lenze¹,², Mark O'Sullivan¹, Dave McCombe¹, Christopher Coombs¹, Leo Donnan¹ (¹Australia, ²Germany)</td>
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<tr>
<td>12:30</td>
<td>Allograft-prosthetic composite after proximal femur bone tumor resection in paediatric age</td>
<td>Domenico Andrea Campanacci, Alessandra Botti, Francesca Totti, Gabriele Ristori, Giovanni Beltrami (Italy)</td>
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<tr>
<td>12:35</td>
<td>Treatment of simple bone cysts with bone marrow aspirate concentrate (BMAC) and equine derived demineralized bone matrix: a retrospective comparative study</td>
<td>Raffaele Dario D'Amato, Antonio Memeo, Federico Fusini, Elena Panuccio, Giuseppe Peretti (Italy)</td>
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<tr>
<td>12:40</td>
<td>Bioexpandable prosthesis after resection of malignant bone tumors in children</td>
<td>Rainer Baumgart (Germany)</td>
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12:57 Lunch
15:00 TRAUMA
16:15 Chairs: Pierre Journeau (France) and Thomas Wirth (Germany)
E-Moderator: Elhanan Bar-On (Israel)

15:00 Metaphyseal fracture displacement is predictive of intra-articular diastasis in adolescent triplane ankle fractures
Surya Mundluru, Jose Romero, Dustin Greenhill, Marilyn Elliott, Robert Wimberly, Anthony Riccio (United States)

15:05 The iole (intramedullary titanium nail osteosynthesis linked external-fixator) technique in pediatric femoral shaft fractures: validity and reliability
Michele Bisaccia, Giuseppe Rollo, Auro Caraffa, Giuseppe Rinonapoli, Niki Cazzella, Paolo Pichierrri, Marco Filipponi, Alessandro Stasi, Luigi Meccariello (Italy)

15:10 Paediatric pelvic fractures: a retrospective review of 2 cohorts of patients
Neil Chotai, Sulaiman Alazzawi, Syeda Zehra, Matthew Barry (United Kingdom)

15:15 Discussion

15:25 Importance of timing in elbow supracondylar fractures associated to neurovascular injury
Ignacio Sanpera, Carmen Munoz-Lopez, Sandra Villafranca (Spain)

15:30 Radial neck fractures in children: results of open reduction
Renato Maria Toniolo, Francesco Falciglia, Marco Giordano, Carlotta Giusti (Italy)

15:35 Can childhood obesity increase the risk of failure in conservative treatment of distal radius fractures?
Gianluca Testa, Andrea Vescio, Ludovico Lucenti, Emanuele Chisari, Vito Pavone (Italy)

15:40 Discussion

15:50 Clavicle fractures in adolescents – to fix or not to fix?
Richie Olandres, Merrilynn Thng, Natalie Pereira, Rui Xian Lim, Elvin Lokino, Nicole Lee, Kevin Lim (Singapore)

15:55 Development and content validation of the patient-reported outcomes of fracture healing (proof) questionnaires
Unni Narayanan, Shikha Patel, Roni Propp, Ashley Ferkul, Mark Camp, Anne Murphy (Canada)

16:00 Kids fractures quality register
Yrjänä Nietosvaara, Topi Laaksonen (Finland)

16:05 Discussion
16:15   FOOT
16:47   Chairs: Dan Cosma (Romania) and Vito Pavone (Italy)
        E-Moderator: Amos Schindler (Israel)

16:15   Subtalar arthroereisis for the treatment of symptomatic paediatric flexible flatfoot
        Christian Smith, Razi Zaidi, Jagmeet Bhamra, Caesar Wek, Anna Bridgens, Michail Kokkinakis (United Kingdom)

16:20   Outcome after subtalar arthroereisis in children with flexible flatfoot depends on time of treatment: midterm results of 95 cases
        Ruediger Krauspe, Bettina Westhoff, Hakan Pilge, Carina Lipp, Martin Ruppert, Martin Hufeland, Hannes Kubo (Germany)

16:25   Quality of life in flexible painful flatfoot: the patient’s and family’s perspective
        Daniela Dibello, Marco Carbone, Valentina Di Carlo, Luca Odoni, Federica Pederiva (Italy)

16:30   A three-in-one procedure to treat talocalcaneal coalition in children: a case-control study
        Giovanni Luigi Di Gennaro, Giovanni Trisolino, Stefano Stallone, Stefano Stilli, Giovanni Gallone, Paola Zarantonello (Italy)

16:35   Discussion

16:47   Coffee break
17:10  HIP  How reliable is the modified lateral pillar classification when a large number of raters from multiple centers are involved, and what factors affect the reliability? Jennifer Laine, John Tis, Susan Novotny, Andrew Ries, Chan-Hee Jo, Harry Kim, International Perthes Study Group (United States)

17:15  OP-045  The role of Doppler ultrasound and MRI of the hip joint to select treatment strategies for children with perthes disease Vadim Kozhevnikov, Mikhail Lobanov, Elena Bobrysheva (Russia)

17:20  OP-046  Minimally invasive surgical techniques in the treatment of Perthes' disease Paviel Rakhman, Oleksandr Korolkov, Zlatoslava Kuzo, Yelyzaveta Katsalap (Ukraine)

17:25  OP-047  “Abortive”, “minimal” or “occult” Perthes’ disease - does it exist in MRI? Ludwig Meiss, Gerald Eggers-Stroeder (Germany)

17:30  Discussion

17:43  OP-048  Prophylactic fixation of the contralateral hip after unilateral slipped capital femoral epiphysis – complication rates and considerations Martin Sköldberg, Bengt Herngren (Sweden)

17:48  OP-049  Outcomes after slipped capital femoral epiphysis – a population-based study with 3-year follow-up Bengt Herngren, Margaretha Stenmarker, Karin Enskär, Gunnar Hägglund (Sweden)

17:53  OP-050  Severe SCFE patients treated with a modified Dunn procedure have low avn rate, high survivorship and little osteoarthritis at longterm followup Till Lerch, Kai Ziebarth, Florian Schmaranzer, Simon Steppacher, Moritz Tannast, Klaus Siebenrock (Switzerland)

17:58  OP-051  Slipped capital femoral epiphysis treatment avoiding femoral-acetabular impingement Francesco Falciglia, Angelo Gabriele Aulisa, Silvia Careri, Renato Maria Toniolo (Italy)

18:03  Discussion
15:00 KNEE
15:50 Chairs: Rudolf Ganger (Austria) and Ignacio Sanpera (Spain)
E-moderator: Dmitry Popkov (Russia)

15:00 Most patients are not back to normal activities one month following eight plates
OP-052 Vanessa Grégoire, David Skaggs, Hulaimatu Jalloh, Peter Stevens,
Stephanie Holmes, Victoria Heagy, Lindsay Andras (United States)

15:05 Complications and errors during guided growth
OP-053 Rolf Burghardt¹, John Herzenberg², Kevin T.G. von der Heydt¹, Natascha Heckel¹,
Peter Bernius¹, Michael Poschmann¹, Rainer Burgkart¹, Rüdiger von Eisenhart-Rothe¹
¹(Germany, ²United States)

15:10 Rebound predictors of varus-valgus deformities around the knee corrected by guided growth
OP-054 Michael Zaidman, Alex Katsman, Mark Eidelman (Israel)

15:15 Discussion

15:25 Outcomes following ACL reconstruction using patellar tendon versus hamstring tendon
autograft in adolescent athletes: an age-, sex-, and BMI-matched cohort study
OP-055 Benton Heyworth, Elizabeth Liotta, Peter D. Fabricant, Ashley Tisosky,
Cameron Waites, Patricia Miller, Dennis Kramer, Mininder Kocher, Lyle Micheli
(United States)

15:30 Anterior cruciate ligament reconstruction in adolescents
OP-056 Francesco Falciglia, Marco Giordano, Cosma Calderaro, Renato Maria Toniolo (Italy)

15:35 Analysis of the incidence of focal periphyseal edema (FOPE). A retrospective study
OP-057 Jürgen Wansch, Rainer Biedermann, Daniel Junker, Isabella Dornauer,
Balázs Sztankay, Michael Ban (Austria)

15:40 Discussion
15:50 **SPINE 1**
16:40 Chairs: Steve Albanese (USA) and Ilkka Helenius (Finland)
E-moderator: René Castelein (The Netherlands)

15:50 OP-058
The surgical volume, more than the number of surgeons or surgeon experience, drives patient outcomes in pediatric scoliosis
Vishal Sarwahi, Sayyida Hasan, Jesse Galina, Lori Shabtai, Terry Amaral (United States)

15:55 OP-059
Radiographic outcome and complication rate of 34 graduates after treatment with vertical expandable prosthetic titanium rib (veptr®): a single centre report
Daniel Studer, Philippe Büchler, Carol Hasler (Switzerland)

16:00 OP-060
High parental anxiety is associated with increased narcotic use in adolescent patients following spinal fusion
Natalya Sarkisova, Lindsay Andras, Joshua Yang, Vernon Tolo, David Skaggs (United States)

16:05 Discussion

16:15 OP-061
Correlation between spine and chest wall deformities and pulmonary function in Marfan’s syndrome
Hila Otremski¹, Dror Ovadia¹, Mary Di Maio³, Roger Widmann² (¹Israel, ²United States)

16:20 OP-062
Outcome of TLSO for idiopathic scoliosis and role of compliance: study according to SRS and SOSORT criteria
Tomasz Kotwicki, Krzysztof Korbel, Piotr Janusz, Mateusz Kozinoga (Poland)

16:25 OP-063
A dynamic growth friendly technique based on a spring distraction system (SDS): results of the first 20 patients
Sebastiaan Wijdicks, Justin Lemans, René Castelein, Moyo Kruyt (Netherlands)

16:30 Discussion
17:10  **CLUBFOOT**
17:59  Chairs: Cristina Alves (Portugal) and Christof Radler (Austria)
      E-moderator: Stephanie Bohm (Sweden)

17:10  A prospective pilot study of the effect of apostherapy in mild residual clubfoot
OP-064  Ina Ryvkin, Shirley Ackerman-Lauffer, Kobi Weisberger, Ehud Lebel (Israel)

17:15  Rapid decrease of cast-induced forces in the Ponseti method
OP-065  Patrick Maathuis, Bob Giesberts, Edsko Hekman, Bart Verkerke (Netherlands)

17:20  Poor evertor muscle activity is a predictor of recurrence in idiopathic clubfoot treated by
      the Ponseti method: a prospective longitudinal study with a 5 year follow up
OP-066  Zoe Little, Andrea Yeo, Yael Gelfer (United Kingdom)

17:25  Discussion

17:35  Correlation of structural abnormalities and quality of life in children with clubfoot
OP-067  Jennifer Mccahill¹,², Julie Stebbins¹, Tim Theologis¹, Jaap Harlaar², Chris Lavy¹
        (¹United Kingdom, ²Netherlands)

17:40  Does treatment of idiopathic clubfoot have an impact on attainment of developmental
      milestones? A multi-centre, international sibling case-control study
OP-068  Katie Hughes¹, Yael Gelfer¹, Deborah Eastwood¹, Mia Dunkley¹, Evette Parnell¹,
        Ariella Yavor², Yoram Hemo², Shlomo Wientroub² (¹United Kingdom, ²Israel)

17:45  Results at skeletal maturity of a new technique for treatment of pes cavovarus
OP-069  Ignacio Sanpera, Laura Corominas, Guillem Frontera-Juan (Spain)

17:50  Discussion

17:59  **MEET THE MENTORS**
18:59  Chairs: Stefan Huhnstock (Norway) and Salih Marangoz (Turkey)
      E-moderator: Virginie Pollet (United Kingdom)
      Mentors: Terje Terjesen (Norway) - Michael Millis (USA)
07:30  **SPINE 2**  
08:19  Chair: Federico Canavese (France) and Carol Hasler (Switzerland)  
E-moderator: Yrjana Nietosvaara (Finland)  

07:30  The safety and efficacy of intrathecal morphine in early onset scoliosis surgery - a 25 year single center experience  
Christina Hardesty, Connie Poe-Kochert, George Thompson, Jochen Son-Hing, Jason Ina, Paul Tripi (United States)  

07:35  Treatment of early onset spinal deformities with magnetically controlled growing rods: a single centre experience of 30 cases  
Daniel Studer, Philippe Büchler, Carol Hasler (Switzerland)  

07:40  Surgical and health related quality of life outcomes of growing rod graduates for severe versus moderate early-onset scoliosis  
Ilkka Helenius¹, Paul Sponseller², Anna McClung², Jeff Pawelek², Muharrem Yazici³, John Emans², George Thompson², Charles Johnston², Suken Shah², Behrooz Akbarnia² (¹Finland, ²United States, ³Turkey)  

07:44  Discussion  

07:55  The titanium-made growth guidance technique for early-onset scoliosis at minimum 2-year follow-up: a prospective multicenter study  
Grzegorz Miękisiak¹, Krzysztof Kołtowski¹, Piotr Menartowicz¹, Tomasz Potaczek¹, Zygmunt Oleksik¹, Dariusz Kotulska¹, Martin Repko², Milan Filipovic², Michał Latalski¹, Anna Danielewicz¹ (¹Poland, ²Czech Republic)  

08:00  Results of surgical treatment of AIS lenke 1 using mis and standard open approaches  
Ayrat Syundyukov, Nikolay Nikolaev, Sergey Aleksandrov, Pavel Kornyakov (Russia)  

08:05  Metal ion release in children having spinal fusion for scoliosis  
Peter Cundy, Brian Freeman, Annika Marcarenhas, William Cundy, Georgia Antoniou (Australia)  

08:10  Discussion
08:20  **SPINE 3**  
Chair: Dror Ovadia (Israel) and Muharrem Yazici (Turkey)  
E-moderator: Pierre Lascombes (Switzerland)

08:20  The effect of providence night-time bracing in treatment of adolescent idiopathic scoliosis  
OP-076  Ane Simony, Mikkel Osterheden Andersen, Stig Mindedahl Jespersen (Denmark)

08:25  Effectiveness of bracing alone in idiopathic EOS  
OP-077  Isabelle Bernardini, Franck Accadbled, Jérôme Sales de Gauzy (France)

08:30  Concomitant low-grade isthmic L5-spondylolisthesis (SP) does not affect the course of  
OP-078  adolescent idiopathic scoliosis (AIS)  
Dietrich Schlenzka, Mauno Ylikoski, Mikko Poussa, Timo Yrjönen, Leena Ristolainen (Finland)

08:35  Discussion

08:45  Comparison of sublaminar bands and all-pedicle screw instrumentation for the correction  
OP-079  of lenke 1 and 2 adolescent idiopathic scoliosis  
Sébastien Pesenti¹, Renaud Lafage², Brice Henry¹, Colleen Wixted²,  
Manon Bolzinger¹, Han Jo Kim², Tejbir Pannu², Matthew Cunningham²,  
Elie Choufani¹, Virginie Lafage², John Blanco², Jean Luc Jouve¹, Roger Widmann²  
¹(France, ²United States)

08:50  Pelvic screw fixation maintains lumbar lordosis in growing rod constructs better than S hooks  
OP-080  Rajan Murgai, Mathew Schur, Lindsay Andras, Nicholas Gonsalves,  
Paul Sponseller, John Emans, Michael G. Vitale, Growing Spine Study Group,  
Children’s Spine Study Group, David Skaggs (United States)

08:55  Are postoperative standing radiographs necessary before hospital discharge in adolescent  
OP-081  idiopathic scoliosis?  
Simon Tournemine, Audrey Angelliaume, Anne-Laure Simon, Christophe Vidal,  
Keyvan Mazda, Brice Ilharreborde (France)

09:00  Discussion
09:10  INFECTION  
09:35  Chair: Manuel Cassiano Neves (Portugal) and Marta Salom (Spain) 
E-moderator: Andrei Gregorewsky (Poland)  

09:10  Is Kingella Kingae today’s primary cause of pediatric osteoarticular infections? A 20-year epidemiological follow-up study in Western Switzerland  
Eri Samara, Vasiliki Spyropoulou, Anne Tabard, Laura Merli, Raimonda Valaikaite, Amira Dhouib, Sergio Manzano, Céline Juchler, Romain Dayer, Dimitri Ceroni (Switzerland)  

09:15  Arthroscopic lavage for the treatment of septic arthritis of the hip in children  
OP-083  Iulian Nusem (Australia)  

09:20  When must we operate on septic arthritis of the hip joint?  
OP-084  Noa Zur-Aviran, Amos Schindler, Nir Sherr-Lurie, Uri Givon (Israel)  

09:25  Discussion
09:35  **BEST OF THE BEST**

10:24  Chairs: Jaroslav Czubak (Poland) and Steve Frick (USA)
E-moderator: Antonio Andreacchio (Italy)

09:35  Incidence of cancer and infertility, in ais patients treated 25 years prior
OP-085  Ane Simony, Mikkel Osterheden Andersen, Leah Yaccat Carreon, Steen Bach Christensen (Denmark)

09:40  Setting priorities in research for the orthopaedic management of lower limb conditions in the paediatric population - a James Lind Alliance research priority setting partnership
OP-086  Martinique Vella-Baldacchino, Daniel C. Perry, Andreas Roposch, Nicolas Nicolaou, Stephen Cooke, Tim Theologis, Paediatric Lower Limb Surgery Group (United Kingdom)

09:45  Investigation of the stress-strain state of the foot model before and after surgical treatment by different methods
OP-087  Paviel Rakhman, Oleksandr Korolkov (Ukraine)

09:50  Discussion

10:00  Is acetabular dysplasia properly interpreted in congenital femoral deficiency? Three dimensional analysis of pelvis computed tomography
OP-088  Bartosz Musielak, Anna Maria Kubicka, Michał Rychlik, Paweł Koczewski, Milud Shadi, Marek Jóźwiak (Poland)

10:05  Development of a risk prediction model for developmental dysplasia of the hip in at-risk newborns
OP-089  Andreas Roposch¹, Evangelia Protopapa¹, Olivia Malaga-Shaw¹, Yael Gelfer¹, Deborah Ridout¹, John H. Wedge² (¹United Kingdom, ²Canada)

10:10  Clubfoot assessment of correction and recurrence: are we speaking the same language?
OP-090  Yael Gelfer¹, Deborah Eastwood¹, Katie Hughes¹, Shlomo Wientroub² (¹United Kingdom, ²Israel)

10:15  Discussion

10:25  Coffee break

11:00  **GENERAL ASSEMBLY - PART. I**

12:00  **GENERAL ASSEMBLY - PART. II**

12:30  Lunch
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>14:30</td>
<td><strong>EPOS STUDY GROUP: CEREBRAL PALSY AND SPINAL DEFORMITIES</strong></td>
<td>Chairs: Reinald Brunner (Switzerland) and Carol Hasler (Switzerland)</td>
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<tr>
<td>14:30</td>
<td>Introduction</td>
<td>Reinald Brunner (Switzerland)</td>
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<td>14:32</td>
<td>Natural history of spinal deformities in cerebral palsy</td>
<td>Reinald Brunner (Switzerland)</td>
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<td>14:42</td>
<td>Discussion</td>
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<td>14:47</td>
<td>Neuromuscular scoliosis: Is there a place for conservative treatment?</td>
<td>Uri Givon (Israel)</td>
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<td>14:57</td>
<td>The pelvis - fundament of the spine</td>
<td>Carol Hasler (Switzerland)</td>
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<td>15:07</td>
<td>The pelvis - rooftop of the hips</td>
<td>Reinald Brunner (Switzerland)</td>
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<td>15:17</td>
<td>Discussion</td>
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<td>15:22</td>
<td>The pelvis - spare it or fuse it?</td>
<td>Dror Ovadia (Israel)</td>
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<td>15:32</td>
<td>Discussion</td>
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<td>15:37</td>
<td>Scoliosis and dislocated hip: hip first or spine first?</td>
<td>Elke Viehweger (France)</td>
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<tr>
<td>15:47</td>
<td>Scoliosis and dislocated hip: hip first or spine first?</td>
<td>René Castelein (Netherlands)</td>
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<td>15:57</td>
<td>Discussion</td>
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<td>16:02</td>
<td>The sagittal profile</td>
<td>Brice Ilharreborde (France)</td>
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<td>16:12</td>
<td>Head control in patients with cerebral palsy</td>
<td>Ana Presedo, Anne-Laure Simon, Marie-France Rietz P.T. (France)</td>
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<td>16:22</td>
<td>Discussion</td>
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<td>16:27</td>
<td>Closure</td>
<td>Carol Hasler (Switzerland)</td>
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<td>16:30</td>
<td><strong>Coffee break</strong></td>
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</tbody>
</table>
17:00  **EPOS STUDY GROUP: SPORTS MEDICINE**
Chair: Franck Accadbled (France)

19:00  **GRAND BALLROOM A**

17:00  Introduction  
OP-102  Franck Accadbled (France)

17:03  ACL injuries in the female athlete adolescent s  
OP-103  Virginie Pollet (United Kingdom)

17:13  ACL : what’s new about rehabilitation, functional testing & RTP in children and adolescents?  
OP-104  Stephan Tercier¹, Marco Turati²,³ (Switzerland, France, Italy)

17:23  Operative management of recent ACL tear: Reconstruction or repair?  
OP-105  Stephan Tercier¹, Marco Turati²,³ (Switzerland, France, Italy)

17:33  Anterior cruciate ligament tears in children: management and growth complications. A  
OP-106  Survey of EPOS and POSNA Membership  
Franck Accadbled (France)

17:43  Discussion  

17:53  Hip arthroscopy in adolescents. Technique and results  
OP-107  Manoj Ramachandran (United Kingdom)

18:08  Evaluation of a theoretical and practical pediatric arthroscopy course, using a virtual knee  
OP-108  simulator  
Franck Accadbled (France)

18:13  Discussion  

**FREE PAPERS**

18:23  The safe distance to the popliteal neurovascular bundle in pediatric arthroscopic knee  
OP-109  surgery: an age-based anatomical study  
Jonathan Schachne, Madison Heath, Kevin Shea, Yi-Meng Yen, Daniel Green,  
Peter Fabricant (USA)

18:28  Medial patellofemoral ligament reconstruction in children - a comparative randomized  
OP-110  short-term study of fascia lata allograft and gracilis tendon autograft reconstruction  
Lukasz Matuszewski (Poland)

18:33  Are the radiological landmarks reliable guidance for femoral tunnel positioning during  
OP-111  medial patello - femoral ligament (MPFL) reconstruction?  
Jaroslaw Felus, Bartlomiej Kowalczyk (Poland)
18:38  Quadriceps tendon turndown for MPFL reconstruction: the anatomical differences between the patellar origins of the quadriceps tendon and MPFL
OP-112  Audrey Rustad, Aleksei Dingel, Ted Ganley, Yi-Meng Yen, Peter D. Fabricant, Phil Wilson, Henry Ellis, Marc Tompkins, Kevin Shea (USA)

18:43  Current practice trends in the surgical management of patellofemoral instability: a survey of the pediatric research in sports medicine (PRiSM) society
OP-113  Curtis Vandenberg, Natalya Sarkisova, J. Lee Pace, Jason Rhodes, Daniel Green, Rachel Y. Goldstein (USA)

18:48  Discussion

18:58  Conclusion
OP-114  Franck Accadbled (France)
<table>
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<tr>
<td>14:30</td>
<td><strong>EPOS STUDY GROUP: HIP AND LOWER LIMB</strong></td>
<td><strong>GRAND BALLROOM B</strong></td>
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<td>IN SKELETAL DYSPLASIA AND METABOLIC DISEASES</td>
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<td><strong>GRAND BALLROOM B</strong></td>
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<td><strong>GRAND BALLROOM B</strong></td>
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<td>14:30</td>
<td>Hip and lower limb in skeletal dysplasia and metabolic diseases - etiology and clinical</td>
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<td><strong>OP-115</strong></td>
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<td><strong>Hakan Ömeroglu (Turkey)</strong></td>
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<td>14:40</td>
<td>Specific hip problems in skeletal dysplasia</td>
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<td><strong>OP-116</strong></td>
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<td><strong>Renata Pospischill (Austria)</strong></td>
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<td>14:50</td>
<td>Epi-, metaphyseal dysplasia – disease specific obstacles during treatment (abnormal joint</td>
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<td>configuration, amount of lengthening, ...)</td>
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<td><strong>OP-117</strong></td>
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<td><strong>Salih Marangoz (Turkey)</strong></td>
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<td>15:00</td>
<td>Treatment of lower limb deformities in hypophosphataemic rickets</td>
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<td><strong>OP-118</strong></td>
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<td><strong>Christof Radler (Austria)</strong></td>
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<td>15:10</td>
<td>Multiple hereditary exostosis disease – treatment of malalignment and impingement</td>
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<td>(including hip impingement)</td>
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<td><strong>OP-119</strong></td>
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<td><strong>John Herzenberg (USA)</strong></td>
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<td>15:20</td>
<td>Osteogenesis imperfecta – deformity correction and prevention of fractures</td>
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<td></td>
<td><strong>Robert Rödl (Germany)</strong></td>
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<td>15:30</td>
<td>Congenital pseudarthrosis of the tibia (CPT) – obtaining and maintaining of fusion</td>
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<td>(resection and compression, X-union, contralateral vascularized fibula)</td>
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<td><strong>OP-121</strong></td>
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<td></td>
<td><strong>Mark Eidelman (Israel)</strong></td>
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<td>15:40</td>
<td>Lower limb deformities in achondroplasia</td>
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<td><strong>OP-122</strong></td>
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<td></td>
<td><strong>Rudolf Ganger (Austria)</strong></td>
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<td>15:50</td>
<td>Clubfoot deformity in skeletal dysplasia</td>
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<td><strong>OP-123</strong></td>
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<td><strong>Cristina Alves (Portugal)</strong></td>
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<td>16.30</td>
<td><strong>Coffee break</strong></td>
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</table>
17:00  EPOS STUDY GROUP: MUSCULOSKELETAL TUMORS, GRAND BALLROOM B
19:00  INFECTIONS & ARTHRITIS GROUP SYMPOSIUM:
WHAT IS HOT IN BONE & JOINT INFECTIONS?
Chairs: Dmitri Ceroni (Switzerland) and Marta Salom (Spain)

17:00  Presentation and Introduction
OP-124  Marta Salom (Spain)

17:05  How to diagnose septic arthritis and acute osteomyelitis in 2019?
OP-125  Cristina Álves (Portugal)

17:15  Should we get oropharynx swabs for every child with a possible diagnosis of bone or joint
OP-126  infection?
   Dmitri Ceroni (Switzerland)

17:25  Are we getting enough MRIs in children with septic arthritis of the hip?
OP-127  Manoj Ramachandran (United Kingdom)

17:35  Biopsy in acute osteomyelitis: never, sometimes or always?
OP-128  Deborah Eastwood (United Kingdom)

17:45  Discussion

18:00  What is the best treatment for septic arthritis: aspiration, arthroscopy or arthrotomy?
OP-129  Ignacio Sanpera and Ana Fernández (Spain)

18:10  Antibiotic treatment in bone & joint infections: what, how and leaded by whom?
OP-130  Nusret Köse (Turkey)

18:20  Sequelae of bone & joint infections: what can we do?
OP-131  Mark Eidelmann (Israel)

18:30  On the horizon of technology in musculoskeletal infections in children
OP-132  Leon Moscona-Mishy and Pablo Castañeda (USA)

18:40  Discussion

18:55  Conclusions
OP-133  Marta Salom (Spain)
### 08:00 Upper Limb

**Chairs:** Sebastian Farr (Austria) and Ivan Hvid (Norway)

E-moderator: Sharon Eylon (Israel)

**08:00**

**OP-134**

Normal glenoid ossification in pediatric and adolescent shoulders mimics Bankart lesions: an MRI-based study  
Peter Fabricant, Harry Greditzer, Joash Suryavanshi, Sreetha Sidharthan, Madison Heath, Daniel Green (USA)

**08:05**

Complications after toe to hand transfers in children with pathology of the hand  
Tatiana Tikhonenko, Sergey Golyana (Russia)

**08:10**

Triangular fibrocartilage complex repair in pediatric patients  
Alex Balboa, Kendra Eckstein, Kevin Little (USA)

**08:15**

Discussion

**08:25**

Changes on computed tomography after arthroscopic debridement and microfracture for osteochondritis dissecans of the capitellum  
Rens Bexkens, Christiaan van Bergen, Michel van den Bekerom, Gino Kerkhoffs, Denise Eygendaal (Netherlands)

**08:30**

Prediction and classification of radial head subluxation and forearm deformity in MHE  
Jaroslaw Michal Deszczynski¹, Tomasz Albrewczynski¹, Aaron Huser², Melih Civan³, Dror Paley², David Feldman² (¹Poland, ²USA, ³Turkey)

**08:35**

Preliminary results of physiolysis and vicker’s ligament excision of madelung deformity in Léri-Weill dyschondrosteosis  
Sanjay Chilbule, Andrea Strogen, Binu Kurien, Timothy Nunn, James Fernandes (United Kingdom)

**08:40**

Discussion
08:50  
**NEUROMUSCULAR**  
**GRAND BALLROOM AB**

09:47  
Chairs: Uri Givon (Israel) and Elke Viehweger (France)  
E-moderator: Reinald Brunner (Switzerland)

08:50  
OP-140  
Is the gothic arch a reliable radiographic landmark for the migration percentage in children with cerebral palsy?  
_Caesar Wek, Piyal Chowdhury, Christian Smith, Michailis Kokkinakis_ (United Kingdom)

08:55  
OP-141  
Impact of hip displacement on health-related quality of life in children with cerebral palsy  
_Unni Narayanan¹, Menal Huroy¹, Clarissa Encisa¹, Ashley Ferkul¹, Kerr Graham², Kishore Mulpuri¹, Darcy Fehlings¹_ (¹Canada, ²Australia)

09:00  
OP-142  
The value of tranexamic acid in children with cerebral palsy undergoing proximal femoral varus derotational osteotomies  
_Alexander Nazareth, Stephen Shymon, Lydia Andras, Rachel Goldstein, Robert Kay_ (USA)

09:05  
Discussion

09:15  
OP-143  
Comparison of the results of primary versus repeat hamstrings surgical lengthening in cerebral palsy  
_Mauro César De Morais Filho, Francesco Blumetti, Cátia Kawamura, Marcelo Fujino, José Augusto Lopes, Daniella Neves, Marcelo Matias_ (Brazil)

09:20  
OP-144  
Monopolar latissimus dorsiis transfer for restoration of elbow flexion in children with arthrogryposis  
_Olga Agranovich, Alexey Baindurashvili, Svetlana Trofimova, Evgeniya Kochenova_ (Russia)

09:25  
OP-145  
The effect of selective dorsal rhizotomy on hip displacement in children with cerebral palsy: a long term follow up study  
_Stacey Miller, Maria Juricic, Emily Schaeffer, Paul Steinbok, Jeffrey Bone, Kishore Mulpuri_ (Canada)

09:30  
OP-146  
Outcome of bilateral hip reconstruction in unilateral subluxated hip in cerebral palsy: comparison to unilateral hip reconstruction  
_Verasak Thamkunanon¹, Norazian Kamisan²_ (¹Thailand, ²Malaysia)

09:35  
Discussion

09:48  
**PRESIDENTIAL GUEST LECTURE**  
**GRAND BALLROOM AB**

10:13  
Terje Terjsen (Norway)

10:13  
**AWARDS 2019**  
**GRAND BALLROOM AB**

10:18  
**PRO MAXIMIS MERITIS**  
**GRAND BALLROOM AB**

10:28  
Dietrich Schlenzka (Finland)

10:28  
**PRESIDENCY TRANSFER**  
**GRAND BALLROOM AB**

10:53  
Coffee break
<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>11:30</td>
<td><strong>CONGENITAL</strong></td>
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<tr>
<td>12:52</td>
<td>Chairs: <em>Darko Anticevic</em> (Croatia) and <em>Roberto Schiavon</em> (Italy)</td>
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<td>E-moderator: <em>Robert Rödl</em> (Germany)</td>
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<tr>
<td>11:30</td>
<td><strong>Molecular diagnostics of skeletal dysplasias by next generation sequencing</strong> - first experience of a single genetic outpatient department from Serbia in the pilot phase prior to establishment of the skeletal dysplasias center</td>
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<td>Marija Mijovic$^1$, Jelena Ruml Stojanovic$^1$, Aleksandra Miletic$^1$, Borut Peterlin$^2$, Ales Maver$^2$, Brankica Dimitrijevic$^3$, Hristina Janeski$^1$, Goran Cuturilo$^1$ ($^1$Serbia, $^2$Slovenia)</td>
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<tr>
<td>11:35</td>
<td>Gait analysis in children with proximal femoral focal deficiency</td>
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<td><em>Lorena Floccari</em>, <em>Kelly Jeans</em>, <em>J Anthony Herring</em>, <em>Charles Johnston</em>, <em>Lori Karol</em> (USA)</td>
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<tr>
<td>11:40</td>
<td>Radiologic outcomes of containment surgery for dysplastic hips in Morquio IVA syndrome</td>
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<td><em>William Mackenzie</em>, <em>Mihir Thacker</em>, <em>Amit Nemade</em>, <em>Kenneth Rogers</em>, <em>Colleen Ditro</em> (India)</td>
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<tr>
<td>11:45</td>
<td>Discussion</td>
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<tr>
<td>11:55</td>
<td>Humeral deformity correction, intramedullary stabilisation and complications in severe osteogenesis imperfect</td>
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<td><em>Sanjay Chilbule</em>, <em>Assad Qureshi</em>, <em>Claire Wagstaff</em>, <em>Nicolas Nicolaou</em>, <em>Stephen Giles</em>, <em>James Fernandes</em> (United Kingdom)</td>
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<td>12:00</td>
<td>Intramedullary nailing with supplemental plate and screw fixation of long bones of patients with osteogenesis imperfect: short-term follow-up</td>
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<td><em>Jeanne M. Franzone$^1$, Kenneth J. Rogers</em>, <em>Richard W. Kruse</em> (USA)</td>
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<td>12:05</td>
<td>Prevalence of vitamin D deficiency in pediatric limb lengthening patients</td>
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<td><em>Jessica Rivera</em>, <em>Nequesha Mohamed</em>, <em>Iciar Davila Castrodad</em>, <em>John Herzenberg</em> (USA)</td>
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<td>12:10</td>
<td>Discussion</td>
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<td>12:20</td>
<td>Complex treatment of CPT</td>
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<td><em>Sergey Khmyzov</em>, <em>Andrey Pashenko</em> (Ukraine)</td>
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<td>12:25</td>
<td>Combined technique with hydroxyapatite coated intramedullary nails in treatment of anterolateral bowing of congenital pseudarthrosis of tibia</td>
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<td>*Arnold Popkov$^1$, Pierre Lascombes$^2$, Mikan Lazovic$^3$, Sinisa Ducic$^3$, Dmitry Popkov$^1$ ($^1$Russia, $^2$Switzerland, $^3$Serbia)</td>
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<td>12:30</td>
<td>Congenital generalized ligamentous laxity increases the rate of residual instability and re-dislocation after patellar realignment in children and adolescents. Results from a retrospective study on a cohort of 78 children</td>
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<td><em>Giovanni Trisolino</em>, <em>Giovanni Luigi Di Gennaro</em>, <em>Giovanni Gallone</em>, <em>Stefano Stallone</em>, <em>Eloenora Olivotto</em>, <em>Marta Favero</em>, <em>Stefano Stilli</em> (Italy)</td>
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<td>12:35</td>
<td>Discussion</td>
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12:53 **CLOSING REMARKS**  
13:00
INDUSTRY SYMPOSIA

14:00  K2M INDUSTRY SYMPOSIUM  GRAND BALLROOM A
15:00  TREATING SEVERE CASES OF SCOLIOSIS AND ACHIEVING GOOD CLINICAL RESULTS

Ilkka Helenius (Finland)

14:00  NUVASIVE INDUSTRY SYMPOSIUM  KING SALOMON AB
15:00  THE PRECICE TECHNOLOGY - MANAGING LIMB LENGTH DISCREPANCY AND DEFORMITY CORRECTION USING THE PRECICE SYSTEM

John E. Herzenberg (USA)
Christof Radler (Austria)
Micha Langendörfer (Germany)

14:00  ORTHOFIX INDUSTRY SYMPOSIUM  KING SALOMON C
15:00  DIFFERENT TECHNIQUES FOR LIMB RECONSTRUCTION

Alex Cherkashin (USA)
Franck Accadbled (France)
Ludwig Schwering (Germany)
INDUSTRY SYMPOSIA

13:30  ORTHOPEDIATRICS INDUSTRY SYMPOSIUM
14:30  CHALLENGES IN DDH: ARE WE MAKING PROGRESS?
Moderator: Thomas Wirth (Germany)

13:30  Introduction
Peter F. Armstrong (Chief Medical Officer, OrthoPediatrics)
Thomas Wirth (Germany)

13:35  General neonatal ultrasound screening: why hasn’t it conquered the world?
Barry Danino (Israel)

13:47  Timing of open reduction: reduction of additional surgery by early or delayed reduction?
Deborah Eastwood (United Kingdom)

13:59  Triple pelvic and periacetabular osteotomy: the gold standard for the treatment of residual
dysplasia from school age into adulthood
Jaroslav Czubak (Poland)

14:11  Discussion

13:30  NUVASIVE INDUSTRY SYMPOSIUM
14:30  MAGEC 10 YEARS ON: A CLINICAL REVIEW

Patrick Kiely (Ireland)
Dror Ovadia (Israel)
Amit Sigal (Israel)
PO-001  Characteristic reconstitution of the spinal Langerhans cell histiocytosis in young children
Naoyuki Nakamura, Yutaka Inaba, Jiro Machida, Yoichi Aota (Japan)

PO-002  Prediction of hip displacement in CP children using the cpup hip score
Per Reidar Høiness, Ivan Hvid (Norway)

PO-003  Treatment avulsion fractures of the distal phalanx of fingers in children
Fan Wang, Andrew Bespalchuk (Belarus)

PO-004  Poorer healing after foot surgery in Charcot Marie Tooth (hereditary motor sensory neuropathy)
Kuldeep Stohr, Helen Swain (United Kingdom)

PO-005  Back to back scoliosis surgeries: is patient safety and outcomes compromised?
Vishal Sarwahi, Jesse Galina, Sayyida Hasan, Lior Shabtai, Yungtai Lo, Terry Amaral (USA)

PO-006  Rotational deformity after humeral supracondylar fractures
Ignacio Sanpera, Carmen Muñoz-Lopez, Marta Salom Taverner (Spain)

PO-007  Unstable osteochondritis dissecans in adolescents treated by arthroscopic bioabsorbable screw fixation of: clinical results and magnetic resonance imaging
Kaloyan Emilov Velev (Spain)

PO-008  Influence of varus derotation intertrochanteric osteotomy on acetabular morphology in children with cerebral palsy: is timing crucial?
Matevz Bajuk, Tanja Slokar, Borut Kovacic, Karin Schara (Slovenia)

PO-009  New histological findings in clubfoot deformity tissue - newly formed and upregulated vessel formations in the contracted side of the clubfoot
Tomas Novotny, Adam Eckhardt, Jarmila Knitlova, Martin Ostadal (Czech Republic)

PO-010  An analysis of pelvic asymmetry between different sexes and races in a cadaveric collection
Robby Goldberg, Karen Standefer, John Birch, Jason Teplensky, Joseph Drain, Conor McCarthy, Raymond Liu (USA)

PO-011  Preservation of distal femoral physis function after prolonged term temporal epiphyseodesis using plates with screws: experimental study
Viktor Rokutov, Dmytro Iershov, Sergiy Khmyzov (Ukraine)

PO-012  Prenatal diagnostics of skeletal dysplasias – case series of single genetic center from Serbia
Marija Mijovic¹, Jelena Ruml Stojanovic¹, Aleksandra Miletic¹, Borut Peterlin², Ales Maver², Brankica Dimitrijevic¹, Hristina Janeski¹, Goran Cuturilo¹ (¹Serbia, ²Slovenia)

PO-013  Sponge rubber revealed two years after penetrating injury: a case report
Sandor Roth, Aron Roth (Croatia)

PO-014  Psychological impact of lower limb fractures in children
Kuldeep Stohr, Mark Latimer, Megan Maidment (United Kingdom)
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<tr>
<th>EP-001</th>
<th>Birth epiphyseolises: visualization of “invisible” fractures and its treatment</th>
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<tr>
<td>Nikolai Rumyantsev, Igor Kruglov, Gamzat Omarov, Natalia Rumiantceva, Nino Abdiba</td>
<td>Russia</td>
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<th>EP-002</th>
<th>Incidental musculoskeletal findings in generation R, a population-based prospective cohort study from fetal life until adulthood</th>
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<tr>
<td>Johannes Bessems, Desiree Vreede de, Edwin Oei</td>
<td>Netherlands</td>
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<tr>
<th>EP-003</th>
<th>Systematic isolation of key parameters for estimating skeletal maturity on knee radiographs</th>
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<tr>
<td>Alex Benedick, Derrick Knapik, Dana Duren, James Sanders, Daniel Cooperman, Raymond Liu</td>
<td>USA</td>
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<th>EP-004</th>
<th>Review of the orthopaedic management of injured children following the Manchester arena bomb blast</th>
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<td>John Taylor, Farhan Ali, Anastasios Chytas, Emmanuel Morakis, Ibrar Majid</td>
<td>United Kingdom</td>
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<th>EP-005</th>
<th>Art and fractures – what children choose to express</th>
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<td>Kuldeep Stohr, Helen Swain</td>
<td>United Kingdom</td>
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<th>EP-006</th>
<th>Incidence of post-operative venous thromboembolism in children with cerebral palsy</th>
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<tr>
<td>Julieanne Sees, Sky Prestowitz, Kathleen Maguire, Kenneth Rogers, Freeman Miller</td>
<td>USA</td>
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<th>EP-007</th>
<th>Paediatric fracture guideline development</th>
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<tr>
<td>Dagmar Kempink, Jan Hein Allema, Hubert Oostenbroek, Victor De Ridder, Jan-Bernard Sintenie</td>
<td>Netherlands</td>
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<th>EP-008</th>
<th>Surgical margins for ewing’s sarcoma – can we afford to be less conservative?</th>
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<td>Marie-Caroline Nogaro, Max Mifsud, Zsolt Orosz, Catherine McCarthy, Richard Craig, Max Gibbons, Tim Theologis</td>
<td>United Kingdom</td>
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<th>EP-009</th>
<th>Long term follow-up of eosinophilic granulomas of the axial and appendicular skeleton managed only with biopsy</th>
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<tr>
<td>Bulent Erol, Osman Mert Topkar, Evrim Şirin, Ahmet Hamdi Akgülle, Said Erkam Baykam</td>
<td>Turkey</td>
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<th>EP-010</th>
<th>Solitary closing wedge corrective osteotomy in camptodactyly patients</th>
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<td>Minjunq Park, Hyun Woo Kim</td>
<td>Korea</td>
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<th>EP-011</th>
<th>Lateral-only pinning of type-3 supracondylar humerus fractures: a population-based study of redisplacement and surgical technique deficiencies</th>
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<tr>
<td>Jaakko Sinikumpu, Tytti Pokka, Linda Korhonen, Hanna Hyvönen, Willy Serlo</td>
<td>USA</td>
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<th>EP-012</th>
<th>Proximal tibia vara is a hidden deformity in a subset of patients with congenital posteromedial bowing of the tibia</th>
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<tr>
<td>Jeanne Franzone, Philip McClure, John Herzenberg</td>
<td>USA</td>
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</table>
EP-013  Recessive multiple epiphyseal dysplasia in differential diagnosis of juvenile arthritis
Vladimir Kenis¹, Evgeniy Melchenko¹, Aleksey Kozhevnikov¹, Ali Al Kaissi², Daria Petrova¹ (¹Russia, ²Austria)

EP-014  Outcomes of the calcaneo-stop procedure for the treatment of juvenile flatfoot in young athletes
Vito Pavone, Andrea Vescio, Emanuele Chisari, Antonio Andreacchio, Giuseppe Sessa, Gianluca Testa (Italy)

EP-015  Guided growth of the tibia for recurvatum
Peter Stevens, David Rothberg, Andrew Stephens (USA)

EP-016  Anterior cruciate and medial collateral ligament footprint anatomy in skeletally immature cadaver knees: avoiding physeal injury and growth disturbance
Kevin Shea, Peter Cannamela, Aleksei Dingel, Peter D. Fabricant, John Polousky, Allen Anderson, Ted Ganley (USA)

EP-017  Osteochondral fractures (OCFS) accompanying acute patellar dislocation (APD) in adolescents - midterm results of open reduction, internal fixation (ORIF)
Jaroslaw Felus, Michał Starmach, Bartłomiej Kowalczyk (Poland)

EP-018  Variation amongst surgeons when treating fifth metacarpal neck fractures in the pediatric population
Thomas Chang, Karan Dua, Alexandria Case, Nathan O’Hara, Joshua M. Abzug (USA)

EP-019  Retrograde femoral nailing through an open physis does not impair growth in pigs
Ahmed Abood, Ole Rahbek, Morten Lykke Olesen, Bjørn Borsøe Christensen, Bjarne Møller-Madsen, Søren Kold (Denmark)

EP-020  Outcomes of spinal accessory to suprascapular nerve transfers for neonatal brachial plexus palsy: a multi-center study
David Segal¹, Roger Cornwall², Francisco Soldado³, Dan Zlotolow², Kevin J. Little² (¹Israel, ²USA, ³Spain)

EP-021  Surgical hip reconstruction in Aitken type A and B PFFD
Joseph Krajbich (USA)

EP-022  Sequential methods of correction deformities of the lower extremities of patients with congenital pseudarthrosis of tibia after achieved union
Ekaterina Zakharyan, Alexsandr Pozdeev, Victor Vilenksy (Russia)

EP-023  Variations in arterial pedal circulation in idiopathic congenital talipes equinovarus (CTEV): a systematic review
Aiysha Puri, Katie Hughes, Katherine Stenson, Peter Holt, Benjamin Patterson, Yael Gelfer (United Kingdom)

EP-024  Role of sagittal boney alignment in development of genu recurvatum in children and adolescents with achondroplasia
Jaroslaw Michal Deszczynski¹, Tomasz Albrechwzynski¹, Aaron Huser², Melih Civan³, Dror Paley³, David Feldman² (¹Poland, ²USA, ³Turkey)
EP-025  Indications for femur lengthening with a distraction nail in children
        **Rainer Baumgart** (Germany)

EP-026  Classification and treatment of ankle valgus in MHE patients
        **David Feldman**, Melih Civan², Troy Rand¹, Dror Paley¹, Aaron Huser¹ (¹USA,
        ²Turkey)

EP-027  Dega transiliac osteotomy in treatment of developmental dysplasia of the hip (DDH): systematic review of the literature following the prisma guidelines
        **Lukasz Wozniak, Marek Jozwiak, Maciej Idzior** (Poland)

EP-028  20 years of experience with french functional method for congenital clubfoot: advantages and limits
        **Robert Elbaum, Brigitte Noel, Vincent Degueldre, Pierre Ghyselinck** (Belgium)

EP-029  Club foot revisited - a neuromuscular disease
        **John Handelsman, Marie Badalamente** (USA)

EP-030  Acetabular dysplasia associated with slipped capital femoral epiphysis – early experience with periacetabular osteotomy in the SCFE population
        **William Dodgen, Michael Millis, Vivek Dutt** (USA)

EP-031  What is the value of perinatal risk factors in predicting radiographic acetabular dysplasia?
        **Tim Hall, Zacharias Anastasiou, Margaret Hall-Craggs, Rumana Omar, Andreas Roposch** (United Kingdom)

EP-032  Diffusion MRI provides early prognosis in Legg Perthes Calvé disease
        **Gauthier Gracia, Franck Accadbled, Christiane Baunin, Jérôme Sales de Gauzy** (France)

EP-033  Is concomitant proximal fibular epiphysiodesis necessary in proximal tibial eight-plate guided growth for limb-length discrepancy?
        **Po Yao Wang, Ting Ming Wang, Kuan Wen Wu, Ken Nan Kuo** (Taiwan)

EP-034  Hemiepiphysiodesis using tension-band plate: does initial screw angle influence speed of correction?
        **Hady Eltayeby¹, John Herzenberg²** (¹Egypt, ²USA)

EP-035  Evaluation of skeletal maturity using the distal femoral physeal central peak is not significantly affected by radiographic projection
        **Derrick Knapik, Mindy Duong, Raymond Liu** (USA)

EP-036  Defining the normal proximal tibio-fibular relationship in children: a simple radiographic measurement
        **Ady Abdel-Haq, Emma Walker, Anish Sanghrajka** (United Kingdom)

EP-037  Cumulative radiation exposure for low dose slot-scanning imaging versus scanogram and hip-to-ankle radiograph
        **Anthony Stans, Fady Baky, Todd Milbrandt, William Shaughnessy, Beth Schueler, A Noelle Larson** (USA)
EP-038  Hip reconstruction including a Dega type pelvic osteotomy in patients with neurologic movement disorder and closed triradiate cartilage - should we do it? 
Thomas Schlemmer, Erich Rutz, Bernhard Speth, Reinald Brunner (Switzerland)

EP-039  How does the shape and the orientation of the acetabulum change in patients with spastic hip disease? Three dimensional CT based study 
Marek Jóźwiak, Michał Rychlik, Andrzej Grzegorzewski, Bartosz Musielak (Poland)

EP-040  Complex open pelvic fracture in a 8 year old girl treated with infix - a case study 
Darius R. Rad, Daphne Van Embden, Paulien Bijlsma, Peter Bates (United Kingdom)

EP-041  Long-term results of osteoarticular reconstructions of pediatric periarticular bone sarcomas with free fibula head flap 
Bulent Erol, Fevzi Sağlam, Ahmet Hamdi Akgülle, Said Erkam Baykam, Özer Öztürk, Cihangir Tetik (Turkey)

EP-042  Is MRI for the indication of extra-articular excision in children knee osteosarcoma a reliable exam? 
Anne Laure Simon, Aurélien Hallé, Pascal Jehanno, Brice Ilharreborde (France)

EP-043  Collagen remodeling in a micro-tissue system: preliminary results 
Isabel Tromp¹, Jasper Foolen¹, Danny Chan², Ying Zhang³, Laura Creemers¹, Moyo Kruyt¹, Rene Castelein¹, Keita Ito¹ (Netherlands, China)

EP-044  The biomechanical comparison between tens, k-wires and plates for surgical treatment of the pediatric forearm shaft fractures 
Yurii Terpylovskyi, Oleksandr Yaresko, Anatolii Levytskyi, Valentyn Rogozynskyi, Ivan Cherniak (Ukraine)

EP-045  Incidence and severity of the foot changes in proximal femoral focal deficiency (PFFD) 
Jiri Chomiak, Martin Ostadal, Monika Frydrychova, Pavel Dungl (Czech Republic)

EP-046  Can guided growth be one of the methods to correct valgus knee in congenital femoral deficiency? 
Barry Danino¹, Robert Rödl², John E. Herzenberg³, Lior Shabtai³, Franz Grill⁴, Unni Narayanan⁵, Eitan Segev¹, Shlomo Wientroub¹ (Israel, Germany, USA, Austria, Canada)

EP-047  Total hip replacement (THR) in skeletal dysplasia (SKD) patients-early results 
Adolfredo Santana, Kenneth J. Rogers, Mihir Thacker, William G. Mackenzie (USA)

EP-048  Retro-patellar technique for telescopic intramedullary nailing 
Ozan Ali Erdal, Baris Gorgun, Ilker Abdullah Sarikaya, Muharrem Inan (Turkey)

EP-049  Surgical treatment of recurrent clubfoot after Ponseti correction only requires minimally invasive surgery 
Karim Masrouha, Wallace Lehman, Kim Schoenfeld, Debra Sala, Jody Litrenta, Alice Chu (USA)
EP-050  Outcome of talocalcaneal coalition resection assisted with intra-operative navigation
Carlos Pargas, Kenneth Rogers, Adolfredo Santana, L. Reid Nichols, Mihir Thacker
(USA)

EP-051  De-threaded screw fixation of slipped capital femoral epiphysis: comparison with standard
screw fixation at skeletal maturity. A prospective, case-controlled cohort study comparing
outcomes after treatment
Henry Mills, Mark Flowers, Nicolas Nicolaou (United Kingdom)

EP-052  Does tranexamic acid reduce blood loss and transfusion rate in children with cerebral palsy
undergoing hip reconstruction with two or more osteotomies?
Pablo Castaneda, Karim Masrouha, Debra Sala, David Godfried, Mara Karamitopoulos
(USA)

EP-053  Validation and reliability testing of the Western Ontario and McMaster osteoarthritis scale
hip score in children and adolescents with Legg-Calvè-Perthes disease
Ava Maleki, Emily Schaeffer, Ramez Allabouni, Kyle Stampe, Kishore Mulpuri (Canada)

EP-054  Hip dysplasia – reduction of luxated head with a distraction nail prior arthroplasty
Rainer Baumgart (Germany)

EP-055  Subscapular abscess in the adolescent - a rare case
Joana Monteiro Pereira, Tiago Costa, Miguel Quesado, João Afonso, Isabel Catarino, Fernando Silva (Portugal)

EP-056  Diagnostic yield of cultures in pediatric musculoskeletal infections
Leon Moscona, Surjya Bhattacharyya, Debra A. Sala, Pablo Castaneda (USA)

EP-057  Hemiepiphysiodesis for coronal angular knee deformities: tension-band plate versus
percutaneous transphyseal screw
Galina Shapiro, Tohar Adato, Paz Shai, Tareq Shrabaty, Ron Lamdan, Naum Simanovsky, Michael Zaidman, Vladimir Goldman (Israel)

EP-058  Accuracy of emergency department and urgent care center pediatric orthopaedic diagnoses
Anna Schoonover, Xuyang Song, Alexandria Case, Joshua M. Abzug (USA)

EP-059  A thirteen-year longitudinal outcome study: is adolescent mobility function preserved in
adults with cerebral palsy?
Faithe Kalisperis, Chris Church, Nancy Lennon, M. Wade Shrader, Kristen Nicholson, Jose de Jesus Salazar-Torres, John Henley, Daveda Taylor, Tim Niiler, Julianne Sees, Freeman Miller (USA)

EP-060  Tibial tuberosity ossification predicts reoperation for growth disturbance in distal femoral
physeal fractures
Jim Kennedy, Dan Westacott, Mark Camp, Andrew Howard (Canada)

EP-061  Pediatric clavicle fractures - is follow-up necessary?
Verena Schreiber, Caroline Wlodarski, Natasha Powell, David Roberts (USA)
EP-062 | Our recent experience in management of capitellum and capitellum-trochlea shear injuries in skeletally immature patients

Naum Simanovsky, Vladimir Goldman, Tareq Sharabaty, Michael Zaidman (Israel)

EP-063 | Treatment of acute Monteggia fracture dislocations in children

Michal Frankl, Dan Epstein, Moshe Dahan, Leonel Copeliovitch, Reuven Shitrit (Israel)

EP-064 | A systematic review of the adverse outcomes following conservative versus surgical management of open fractures in the paediatric population

Abhinav Singh, William Bierrum, Justin Wormald, Deborah Eastwood (United Kingdom)

EP-065 | Results of conservative treatment of diaphyseal fractures of the tibia in adolescents

Cesar García-Mauriño, Joaquin Núñez De Armas, Alfonso Vaquero Picado, Luis Moraleda Novo (Spain)

EP-066 | The scapholunate interval in the pediatric population decreases in size as age increases

Timothy Shaver, Alexandria Case, Danielle Hogarth, Joshua M. Abzug (USA)

EP-067 | Operative fixation of medial epicondyle fractures: no difference in complication rates based on mode of fixation with high rate of return to sports

Ena Nielsen, Lindsay Andras, Nina Lightdale-Miric, J. Lee Pace (USA)

EP-068 | Congenital forearm pseudarthrosis: a systematic review of literature

Suzanne de Vos-Jakobs, Michiel Siebelt, Gert Bessems, Rianne Oostenbrink, Christianne van Nieuwenhoven, Dagmar Kempink (Netherlands)

EP-069 | Treatment of lateral humeral condyle non-unions in children: an observational study and a review of the literature

Giovanni Gallone, Giovanni Luigi Di Gennaro, Giovanni Trisolino, Piergiuseppe Tanzi, Diego Antonioli, Stefano Stallone, Stefano Stilli, Eleonora Olivotto (Italy)

EP-070 | Does an associated elbow dislocation lead to worse outcomes in medial epicondyle fractures?

Sarah Toner, Alexandria Case, Danielle Hogarth, Joshua M. Abzug (USA)

EP-071 | Limb lengthening and deformity correction with externally controlled motorized intramedullary nails. Evaluation of 50 consecutive lengthenings

Joachim Horn, Stefan Huhnstock, Ivan Hvid, Anne Breen, Harald Steen (Norway)

EP-072 | Miserable malalignment syndrome in children - a systematic review and case series

Darius R. Rad, Paul Cameron, Subramanyam Naidu Maripuri (United Kingdom)

EP-073 | High prevalence of tethered cord and neuraxis abnormalities in Costello syndrome (CS)

Mihir Thacker, Vinay Kandula, Laura Baker, Karen Gripp (USA)

EP-074 | Surgery in arthrogypotic patients according to classification improves knee range of motion

David Feldman, Erica Boliek, Troy Rand, Dror Paley, Aaron Huser (USA)
EP-075  A prospective study to assess the clinical impact of interobserver reliability of ultrasound enhanced physical examination of the hip
Pablo castañeda, Mónica Rubio Lorenzo, Romina Cavallaro (USA)

EP-076  Does familial clubfoot have worse course and outcomes than non-familial clubfoot?
Emanuel Melaku, Alan J. Katz, Tamar Mariella Weyel-Berenstein, Ehud Lebel (Israel)

EP-077  The value of standard x-rays in Ponseti treated clubfoot
Nienke Koenrades, Sophie Moerman, Max Reijman, Suzanne de Vos-Jakobs, Dagmar Kempink, Gert Bessem (Netherlands)

EP-078  The validity of patient reported outcome measurement information system (PROMIS) parent proxy instruments to assess function in children with talipes equinovarus
Karim Masrouha, Wallace Lehman, Michael Moses, Debra Sala, Jody Litrenta, Alice Chu (USA)

EP-079  Does size matter: foot size in clubfoot
Yoram Hemo, Ariela Yavor, Shlomo Wientroub (Israel)

EP-080  Effects of body weight on the clinical and radiological outcomes of children with flexible flatfeet managed with the “calcaneo-stop” procedure
Vito Pavone¹, Andrea Vescio¹, Ludovico Lucenti¹, Federico Canavese²,², Emanuele Chisari¹, Giuseppe Sessa¹, Gianluca Testa¹ (¹Italy, ²France, ³China)

EP-081  Comparison of direct and indirect measurements of pulse in the proximal femoral epiphysis using an intracranial pressure monitoring probe
Martin Gottliebsen, Mathias Bünger, Ahmed Abood, Vilhelm Engell, Ole Rahbek (Denmark)

EP-082  Hip survival after treatment of avascular necrosis after slipped capital femoral epiphysis is dependent on degree of femoral head involvement
Michael Millis, James Wylie, Mariana Ferrer, Eduardo Novais, Patricia Miller (USA)

EP-083  Treatment of hips with avascular necrosis after slipped capital femoral epiphysis by flexion intertrochanteric osteotomy
James Wylie, Michael Millis, Mariana Ferrer, Eduardo Novais, Patricia Miller, Young-jo Kim (USA)

EP-084  Isolated trochanteric descent and greater trochanteric apophyseodesis are equally inefficient in the treatment of post-Perthes deformity
Pablo castañeda¹, Jorge Mijares², Nelson Cassis² (¹USA, ²Mexico)

EP-085  Complications related to the use of Hansson pins in the in-situ fixation of slipped capital femoral epiphysis - a 12 year experience
Bernhard Speth, David Wehrlen, Thomas Schlemmer, Erich Rutz, Carlo Camathias (Switzerland)
EP-086  Brodie’s abscess - a review of current management following an atypical presentation in a distal radius fracture managed with percutaneous Kirschner wire fixation
Sivan Sivaloganathan, Laszlo Zolczer, Paramita Mitra (United Kingdom)

EP-087  The Internet, social media and magnetically controlled growing rods: what do our patients see online?
Cynthia Nguyen, Ronen Sever, Selina Poon, Robert Cho, Graham Fedorak (USA)

EP-088  Touched vertebra (TV) on standing x-ray is a good predictor for LIV. TV on prone x-ray is better
Vishal Sarwahi, Sayyyida Hasan, Jesse Galina, Lori Shabtai, Terry Amaral (USA)

EP-089  Minimally invasive surgery in neuromuscular scoliosis: a superior approach for severely impaired patients
Vishal Sarwahi, Sayyyida Hasan, Jesse Galina, Lori Shabtai, Terry Amaral (USA)

EP-090  Intraoperative CT-guided navigation reduces pedicle screw malposition
Anthony Stans, Fady Baky, Scott Echternacht, Todd Milbrandt, William Shaughnessy, A Noelle Larson (USA)

EP-091  Pathologic sagittal alignment is already present in early stages of adolescent idiopathic scoliosis (AIS)
Tom Schlösser¹, Kariman Abelin-Genevois², René Castelein¹, Suken Shah³
(¹Netherlands, ²France, ³USA)

EP-092  Spinal infections in AIS and neuromuscular scoliosis. Are MRSA Nares’ cultures predictors of trouble to come?
Jose Herrera-Soto, Jonathan Phillips, D. Raymond Knapp, Brandom Ramo, Jonathan Wilhite (USA)

EP-093  Satisfactory fracture reduction can be achieved using the single-pulse mode on the C-arm image intensifier
Jameson Lua, Neeraj Mishra¹ Syed Ehsan Saffari, Arjandas Mahadev, Kenneth Wong
(Singapore)

EP-094  Giant cell tumor of tendon sheath: report on six patients
Nikola Bojovic, Dragoljub Zivanovic, Danijela Djerić (Serbia)

EP-095  Combined plastic of bone cysts in children
Olga Hotim, Viktor Anosov, Leonid Sychevskij (Belarus)

EP-096  Proximal tibia reconstruction with osteotendinous allograft in pediatric patients affected by bone tumors: implant survival and functional outcomes of replaced patellar tendon
Francesco M. Lotito, Michele Gallo, Gianluigi Federico, Flavio Fazioli, Massimiliano Amato (Italy)

EP-097  Lengthening the ulna in patients with multiple hereditary exostoses
Sergio Martinez-Alvarez¹, Danilo González-Zapata², Isabel Vara-Patudo¹ (¹Spain, ²Chile)
EP-098  Preliminary results of a new arthroscopic ACL repairing technique with bio absorbable anchor in proximal anterior cruciate ligament tears in skeletally immature patients Marco Bigoni¹, Nicolò Zanchi¹, Luca Rigamonti¹, Massimiliano Piatti¹, Massimo Gorla¹, Giovanni Zatti¹, Marco Turati¹,³ (Italy, France)

EP-099  Pediatric compliance of lower extremity weight bearing restrictions following injury Alexandria Case, Danielle Hogarth, Joshua M. Abzug (USA)

EP-100  Bioadsorbable pins in the arthroscopic treatment of anterior intercondylar eminence fracture in skeletally immature patients Paolo Trezza, Raffaele Dario D’Amato, Andrea Voto, Federica Formiconi, Elena Panuccio, Antonio Memeo (Italy)

EP-101  Prospectively calculated utility values in children with osteochondritis dissecans of the knee Joshua Adjej, Benedict Nwachukwu, Yi Zhang, Daniel Green, Emily Dodwell, Peter Fabricant (USA)


EP-103  Tape augmentation to protect graft in pediatric ACL reconstruction – review of literature and own results Grzegorz Pilecki, Zbigniew Pilecki, Anna Kurzak-Pilecka (Poland)
INDUSTRY SYMPOSIA

14:00 K2M INDUSTRY SYMPOSIUM GRAND BALLROOM A
15:00 TREATING SEVERE CASES OF SCOLIOSIS AND ACHIEVING GOOD CLINICAL RESULTS

Ilkka Helenius (Finland)

14:00 NUVASIVE INDUSTRY SYMPOSIUM KING SOLOMON AB
15:00 THE PRECICE TECHNOLOGY - MANAGING LIMB LENGTH DISCREPANCY AND DEFORMITY CORRECTION USING THE PRECICE SYSTEM

John E. Herzenberg (USA)
Christof Radler (Austria)
Micha Langendörfer (Germany)

14:00 JUNIORTHO™ INDUSTRY SYMPOSIUM KING SOLOMON C
15:00 DIFFERENT TECHNIQUES FOR LIMB RECONSTRUCTION

Alexander Cherkashin (USA)
Franck Accadbled (France)
Ludwig Schwering (Germany)
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<td>INDUSTRY SYMPOSIA</td>
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<td>ORTHOPEDIATRICS INDUSTRY SYMPOSIUM</td>
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<td>CHALLENGES IN DDH: ARE WE MAKING PROGRESS?</td>
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<td>Introduction</td>
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<td>Peter F. Armstrong (Chief Medical Officer, OrthoPediatrics)</td>
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<td>Thomas Wirth (Germany)</td>
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<td>General neonatal ultrasound screening: why hasn’t it conquered the world?</td>
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<td>Barry Danino (Israel)</td>
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<td>Timing of open reduction: reduction of additional surgery by early or delayed reduction?</td>
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<td>Deborah Eastwood (United Kingdom)</td>
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<td>Triple pelvic and periacetabular osteotomy: the gold standard for the treatment of residual dysplasia from school age into adulthood</td>
<td>Jarvislaw Czubak (Poland)</td>
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<td>Jaroslaw Czubak (Poland)</td>
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<td>Discussion</td>
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<td>NUVASIVE INDUSTRY SYMPOSIUM</td>
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<td>MAGEC 10 YEARS ON: A CLINICAL REVIEW</td>
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<td>Patrick Kiely (Ireland)</td>
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<td>Amit Sigal (Israel)</td>
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