



European Paediatric Orthopaedic Society



38th EPOS

Annual Meeting

European Paediatric Orthopaedic Society

3rd - 6th April, 2019

Tel Aviv - Israel

SCIENTIFIC PROGRAM



PROGRAM AT A GLANCE

WEDNESDAY APRIL 3RD	
	Grand Ballroom AB
12:00 - 14:20	Precourse CLUBFOOT
14:20 - 15:00	<i>Coffee break</i>
15:00 - 17:00	Precourse CLUBFOOT
19:00 - 20:00	WELCOME CEREMONY
20:00	<i>Welcome Reception at the Congress Venue</i>

THURSDAY APRIL 4TH				
	Grand Ballroom AB			
08:00 - 08:20	Opening Ceremony			
08:20 - 09:26	BASIC SCIENCE			
09:26 - 10:15	SPORTS MEDICINE			
10:16 - 10:45	<i>Coffee break</i>			
10:46 - 12:01	DDH			
12:01 - 12:57	TUMOURS			
12:57 - 14:00	<i>Lunch</i>			
	Grand Ballroom A	Grand Ballroom B		King Salomon AB
				King Salomon C
14:00 - 15:00	Industrial Symposium	Industrial Symposium		Industrial Symposium
15:00 - 16:15	TRAUMA	15:00 - 15:50	KNEE	
		15:50 - 16:40	SPINE 1	
16:15 - 16:47	FOOT			
16:47 - 17:10	<i>Coffee break</i>			
17:10 - 18:15	HIP	17:10 - 17:59	CLUB FOOT	
		17:59 - 18:59	MEET THE MENTOR	
19:30	<i>Welcome reception offered by Tel Aviv Municipality</i>			

PROGRAM AT A GLANCE

FRIDAY APRIL 5 TH				
	Grand Ballroom AB		King Salomon AB	King Salomon C
07:30 - 08:19	SPINE 2			
08:20 - 09:09	SPINE 3			
09:10 - 09:35	INFECTION			
09:35 - 10:24	BEST OF THE BEST			
10:25 - 11:00	<i>Coffee break</i>			
			11:00 - 12:00	General Assembly I
			12:00 - 13:00	General Assembly II
12:30 - 13:30	<i>Lunch</i>			
	Grand Ballroom A	Grand Ballroom B	King Salomon AB	King Salomon C
13:30 - 14:30	Industrial Symposium	Industrial Symposium	Industrial Symposium	Industrial Symposium
14:30 - 16:30	EPOS STUDY GROUP Cerebral Palsy and Spinal Deformity	EPOS STUDY GROUP Hip and lower limb in skeletal dysplasia and metabolic diseases		
16:30 - 17:00	<i>Coffee break</i>			
17:00 - 19:00	EPOS STUDY GROUP Sports Medicine	EPOS STUDY GROUP Musculoskeletal Tumours, Infections & Arthritis Group		
20:30	<i>Congress Dinner</i>			

SATURDAY APRIL 6 TH	
	Grand Ballroom AB
08:00 - 08:49	UPPER LIMB
08:50 - 09:47	NEUROMUSCULAR
09:48 - 10:13	PRESIDENTIAL GUEST LECTURE
10:13 - 10:18	AWARDS 2019
10:18 - 10:28	PRO MAXIMIS MERITIS
10:28 - 10:53	TRANSFER PRESIDENCY
10:53 - 11:30	<i>Coffee break</i>
11:30 - 12:52	CONGENITAL
12:53 - 13:00	CLOSING REMARKS



12.00 PRECOURSE: CLUBFOOT

17.00

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 arthrogryptic 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

GRAND BALLROOM AB

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
08:20

OPENING CEREMONY

GRAND BALLROOM AB

08:20
09:26

BASIC SCIENCE

GRAND BALLROOM AB

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

08:20
OP-001

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

08:25
OP-002

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
OP-003

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

08:35
OP-004

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
OP-005

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

08:58
OP-006

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
OP-007

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

09:08
OP-008

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 Xun**², **Yiqiang Li**², **André Kaelin**³, **Alain Dimeglio**¹, **Hongwen Xu**² (¹France, ²China, ³Switzerland)

09:13

Discussion

09:26 SPORTS MEDICINE

GRAND BALLROOM AB

10:15 Chairs: **Jorge Knörr** (Spain) and **Annalie Martina Weinberg** (Austria)
E-Moderator: **Moshe Yaniv** (Israel)

09:26 The influence of general physical health and socioemotional status on the outcomes
OP-009 following meniscus repair procedure in patients under 18 years
Viktorija Brogaite Martinkeniene, Andrius Šaikus, Andrius Brazaitis, Giedrius Bernotavičius (Lithuania)

09:31 Prevalence of ramp meniscal lesions associated with ACL injury in children and adolescents
OP-010 **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
OP-011 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
OP-012 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
OP-013 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
OP-014 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*



GRAND BALLROOM AB

10:46 DDH

12:01 Chairs: **Hakan Omeroglu** (Turkey) and **Andreas Roposch** (United Kingdom)
E-Moderator: **Renata Pospischill** (Austria)

10:46 Comparison between the Pavlik Harness and the Tübingen splint for the treatment of
OP-015 developmental dysplasia of the hip in infants
Xuemin Lyu, Min Lu (China)

10:51 The complication rate for treatment of developmental dysplasia of the hip with the Pavlik
OP-016 Harness
Pablo Castañeda¹, Carlos Vidal² (¹United States, ²Mexico)

10:56 Predictors of avascular necrosis of the femoral head following closed or open reduction in
OP-017 the treatment of developmental dysplasia of the hip
Emily Schaeffer¹, Jeffrey Bone¹, Wudbhav Sankar¹, Travis Matheney², Kishore Mulpuri¹
(¹Canada, ²United States)

11:01 Discussion

11:11 Is closed reduction for DDH avoidable?
OP-018 **David Milligan, Aidan Cosgrove** (United Kingdom)

11:16 Effect of age on radiographic outcomes of patients aged 6 to 24 months with
OP-019 developmental dysplasia of the hip treated by closed reduction
**Yiqiang Li¹, Yanhan Liu¹, Jingchun Li¹, Yuanzhong Liu¹, Bruno Pereira²,
Federico Canavese², Hongwen Xu¹** (¹China, ²France)

11:21 Acetabular indices in children at risk of developmental dysplasia of the hip: time for new
OP-020 references?
**Sayeed Ahmed Khan, Hassaan Qaiser Sheikh, Venla Kontala, James A Fernandes,
Nicolas Nicolaou³** (United Kingdom)

10:26 Discussion

11:36 Factors affecting the outcome of open reduction for developmental dysplasia of the hip
OP-021 performed over the age of 18 months
Avi Marks, Tom Southorn, Dror Maor, Aresh Hashemi-Nejad, Andreas Roposch
(United Kingdom)

11:41 Dega transiliac osteotomy in the developmental dislocation of the hip: long-time outcome
OP-022 in patients treated when older than 5 y.o.
Lukasz Wozniak, Marek Jozwiak, Maciej Idzior (Poland)

11:46 Significance of asymmetry of groin/thigh creases in developmental dysplasia of the hip
OP-023 revisited; a myth or a fact?
Hakan Ömeroglu, Erdem Tatlici, Nusret Köse (Turkey)

10:51 Discussion

12:01 TUMORS

GRAND BALLROOM AB

12:57

Chairs: **Nuno Alegrete** (Portugal) and **Bjarne Moller-Madsen** (Denmark)
E-Moderator: **Robert Elbaum** (Belgium)

12:01

OP-024

Pelvic ring reconstruction with a double-barreled free vascularized fibula graft after resection of pediatric pelvic bone sarcomas
Bulent Erol, Osman Mert Topkar, Tolga Onay, Said Erkam Baykam, Servet İğrek, Cihangir Tetik (Turkey)

12:06

OP-025

Free fibula reconstruction of distal tibial osteoarticular defects after sarcoma surgery
Bulent Erol, Fevzi Sağlam, Ahmet Hamdi Akgülle, Said Erkam Baykam, Servet İğrek, Cihangir Tetik (Turkey)

12:11

OP-026

Intramedullary fixation of double barrel vascularised fibula grafts with subsequent femoral lengthening for reconstruction of the distal femur in osteosarcoma patients
Ulrich Lenze^{1,2}, **Mark O'Sullivan**¹, **Dave McCombe**¹, **Christopher Coombs**¹, **Leo Donnan**¹ (¹Australia, ²Germany)

12:16

Discussion

12:25

OP-027

Allograft-prosthetic composite after proximal femur bone tumor resection in paediatric age
Domenico Andrea Campanacci, Alessandra Botti, Francesca Totti, Gabriele Ristori, Giovanni Beltrami (Italy)

12:30

OP-028

Granular cells tumors in pediatric patients
Carlos Pargas, Kenneth Rogers, Mihir Thacker (United States)

12:35

OP-029

Treatment of simple bone cysts with bone marrow aspirate concentrate (BMAC) and equine derived demineralized bone matrix: a retrospective comparative study
Raffaele Dario D'Amato, Antonio Memeo, Federico Fusini, Elena Panuccio, Giuseppe Peretti (Italy)

12:40

OP-030

Bioexpandable prosthesis after resection of malignant bone tumors in children
Rainer Baumgart (Germany)

10:45

Discussion

12:57

14.00

Lunch



GRAND BALLROOM A

15:00

TRAUMA

16:15

Chairs: **Pierre Journeau** (France) and **Thomas Wirth** (Germany)E-Moderator: **Elhanan Bar-On** (Israel)

15:00

OP-031

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

OP-032

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 Pichierri, Marco Filippini, Alessandro Stasi, Luigi Meccariello (Italy)

15:10

OP-033

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

OP-034

Importance of timing in elbow supracondylar fractures associated to neurovascular injury

Ignacio Sanpera, Carmen Munoz-Lopez, Sandra Villafranca (Spain)

15:30

OP-035

Radial neck fractures in children: results of open reduction

Renato Maria Toniolo, Francesco Falciglia, Marco Giordano, Carlotta Giusti (Italy)

15:35

OP-036

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

OP-037

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

OP-038

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

OP-039

Kids fractures quality register

Yrjänä Nietosvaara, Topi Laaksonen (Finland)

16:05

Discussion

GRAND BALLROOM A

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
OP-040 **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
OP-041 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
OP-042 **Daniela Dibello, Marcco 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
OP-043 **Giovanni Luigi Di Gennaro, Giovanni Trisolino, Stefano Stallone, Stefano Stilli, Giovanni Gallone, Paola Zarantonello** (Italy)

16:35 *Discussion*

16:47 *Coffee break*



GRAND BALLROOM A

- 17:10 HIP**
18:15 Chairs: **Jiri Chomiak** (Czech Republic) and **Manoj Ramachandran** (United Kingdom)
E-moderator: **Marek Synder** (Poland)
- 17:10** How reliable is the modified lateral pillar classification when a large number of raters from
OP-044 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** The role of Doppler ultrasound and MRI of the hip joint to select treatment strategies for
OP-045 children with perthes disease
Vadim Kozhevnikov, Mikhail Lobanov, Elena Bobrysheva (Russia)
- 17:20** Minimally invasive surgical techniques in the treatment of Perthes' disease
OP-046 **Pavlel Rakhman, Oleksandr Korolkov, Zlatoslava Kuzo, Yelyzaveta Katsalap** (Ukraine)
- 17:25** "Abortive", "minimal" or "occult" Perthes' disease - does it exist in MRI?
OP-047 **Ludwig Meiss, Gerald Eggers-Stroeder** (Germany)
- 17:30** *Discussion*
- 17:43** Prophylactic fixation of the contralateral hip after unilateral slipped capital femoral
OP-048 epiphysis – complication rates and considerations
Martin Sköldberg, Bengt Hergren (Sweden)
- 17:48** Outcomes after slipped capital femoral epiphysis – a population-based study with 3-year
OP-049 follow-up
Bengt Hergren, Margaretha Stenmarker, Karin Enskär, Gunnar Hägglund (Sweden)
- 17:53** Severe SCFE patients treated with a modified dunn procedure have low avn rate, high
OP-050 survivorship and little osteoarthritis at longterm followup
Till Lerch, Kai Ziebarth, Florian Schmaranzer, Simon Steppacher, Moritz Tannast, Klaus Siebenrock (Switzerland)
- 17:58** Slipped capital femoral epiphysis treatment avoiding femoral-acetabular impingement
OP-051 **Francesco Falciglia, Angelo Gabriele Aulisa, Silvia Careri, Renato Maria Toniolo** (Italy)
- 18:03** *Discussion*

GRAND BALLROOM B

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 Burghardt**¹, **John Herzenberg**², **Kevin T.G. von der Heydt**¹, **Natascha Heckel**¹,
Peter Bernius¹, **Michael Poschmann**¹, **Rainer Burgkart**¹, **Rüdiger von Eisenhart-Rothe**¹
(¹Germany, 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
OP-055 autograft in adolescent athletes: an age-, sex-, and BMI-matched cohort study
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*



GRAND BALLROOM B

15:50 **SPINE 1**

16:40 Chairs: **Steve Albanese** (USA) and **Ilkka Helenius** (Finland)
E-moderator: **Julio Duarte** (Spain)

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

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

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

16:05 *Discussion*

16:15 Correlation between spine and chest wall deformities and pulmonary function in Marfan's
OP-061 syndrome
Hila Otremski¹, Dror Ovadia¹, Mary Di Maio², Roger Widmann²
(¹Israel, ²United States)

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

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

16:30 *Discussion*

17:10 CLUBFOOT

GRAND BALLROOM B

17:59 Chairs: **Cristina Alves** (Portugal) and **Pasquale Farsetti** (Italy)
E-moderator: **Stephanie Bohm** (Sweden)

17.10 A prospective pilot study of the effect of apotherapy in mild residual clubfoot
OP-064 **Ina Ryykin, Shirley Ackerman-Laufer, 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
OP-066 the Ponseti method: a prospective longitudinal study with a 5 year follow up
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 Mccahill^{1,2}, 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
OP-068 milestones? A multi-centre, international sibling case -control study
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

GRAND BALLROOM B

18:59 Chairs: **Stefan Huhnstock** (Norway) and **Salih Marangoz** (Turkey)
E-moderator: **Virginie Pollet** (United Kingdom)
Mentors: **Terje Terjesen** (Norway) - **Michael Millis** (USA)



GRAND BALLROOM AB

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
OP-070 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
OP-071 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
OP-072 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
OP-073 2-year follow-up: a prospective multicenter study**Grzegorz Miękiński¹, Krzysztof Kołtowski¹, Piotr Menartowicz¹, Tomasz Potaczek¹, Zygmunt Oleksik¹, Dariusz Kotulski¹, Martin Repko², Milan Filipovic², Michał Latałski¹, Anna Danielewicz¹** (¹Poland, ²Czech Republic)

08:00 Results of surgical treatment of AIS lenke 1 using mis and standart open approaches

OP-074 **Ayrat Syundyukov, Nikolay Nikolaev, Sergey Aleksandrov, Pavel Korniyakov** (Russia)

08:05 Metal ion release in children having spinal fusion for scoliosis

OP-075 **Peter Cundy, Brian Freeman, Annika Marcarenhas, William Cundy, Georgia Antoniou** (Australia)08:10 *Discussion*

GRAND BALLROOM AB

08:20 **SPINE 3**

09:09 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**
(¹France, 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 Ilharberorde** (France)

09:00 *Discussion*



09:10 **INFECTION**

GRAND BALLROOM AB

09:35

Chair: **Manuel Cassiano Neves** (Portugal) and **Marta Salom** (Spain)

E-moderator: **Andrei Gregorewsky** (Poland)

09:10

OP-082

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 Merlini**, **Raimonda Valaikaite**, **Amira Dhoub**, **Sergio Manzano**, **Céline Juchler**, **Romain Daye**, **Dimitri Ceroni** (Switzerland)

09:15

OP-083

Arthroscopic lavage for the treatment of septic arthritis of the hip in children

Iulian Nusem (Australia)

09:20

OP-084

When must we operate on septic arthritis of the hip joint?

Noa Zur-Aviran, **Amos Schindler**, **Nir Sherr-Lurie**, **Uri Givon** (Israel)

09:25

Discussion

09:35	BEST OF THE BEST	GRAND BALLROOM AB
10:24	Chairs: Jaroslav Czubak (Poland) and Steve Frick (USA) E-moderator: Antonio Andreacchio (Italy)	
09:35	Incidence of cancer and infertility, in a/s 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	<i>Discussion</i>	
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 Józwiak (Poland)	
10:05	Development of a risk prediction model for developmental dysplasia of the hip in at-risk newborns	
OP-089	Andreas Roposch ¹ , Evangelia Protopapa ¹ , Olivia Malaga-Shaw ¹ , Yael Gelfer ¹ , Deborah Ridout ¹ , John H. Wedge ² (¹ United Kingdom, ² Canada)	
10:10	Clubfoot assessment of correction and recurrence: are we speaking the same language?	
OP-090	Yael Gelfer ¹ , Deborah Eastwood ¹ , Katie Hughes ¹ , Shlomo Wientroub ² (¹ United Kingdom, ² Israel)	
10:15	<i>Discussion</i>	
10:25	<i>Coffee break</i>	
11:00	GENERAL ASSEMBLY - PART. I	KING SALOMON C
12:00		
12:00	GENERAL ASSEMBLY - PART. II	KING SALOMON C
13:00		
12:30	<i>Lunch</i>	
13:30		



**14:30 EPOS STUDY GROUP: CEREBRAL PALSY
16:30 AND SPINAL DEFORMITIES**

Chairs: **Reinald Brunner** (Switzerland) and **Carol Hasler** (Switzerland)

14:30 Introduction

OP-091 **Reinald Brunner** (Switzerland)

14:32 Natural history of spinal deformities in cerebral palsy

OP-092 **Reinald Brunner** (Switzerland)

14:42 Discussion

14:47 Neuromuscular scoliosis: Is there a place for conservative treatment?

OP-093 **Uri Givon** (Israel)

14:57 The pelvis - fundament of the spine

OP-094 **Carol Hasler** (Switzerland)

15:07 The pelvis - rooftop of the hips

OP-095 **Reinald Brunner** (Switzerland)

15:17 Discussion

15:22 The pelvis - spare it or fuse it?

OP-096 **Dror Ovadia** (Israel)

15:32 Discussion

15:37 Scoliosis and dislocated hip: hip first or spine first?

OP-097 **Elke Viheweger** (France)

15:47 Scoliosis and dislocated hip: hip first or spine first?

OP-098 **René Castelein** (Netherlands)

15:57 Discussion

16:02 The sagittal profile

OP-099 **Brice Ilharreborde** (France)

16:12 Head control in patients with cerebral palsy

OP-100 **Ana Presedo, Anne-Laure Simon, Marie-France Rietz P.T.** (France)

16:22 Discussion

16:27 Closure

OP-101 **Carol Hasler** (Switzerland)

16.30 *Coffee break*

17:00 EPOS STUDY GROUP: SPORTS MEDICINE

GRAND BALLROOM A

19:00 Chair: **Franck Accadbled** (France)

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 Turati^{2,3}** (¹Switzerland, ²France, ³Italy)

Battle session

17:23 Operative management of recent ACL tear: Reconstruction or repair?

OP-105 **Stephan Tercier¹, Marco Turati^{2,3}** (¹Switzerland, ²France, ³Italy)

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 simulator

OP-108 **Franck Accadbled** (France)

18:13 Discussion

FREE PAPERS

18:23 The safe distance to the popliteal neurovascular bundle in pediatric arthroscopic knee surgery: an age-based anatomical study

OP-109 **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 short-term study of fascia lata allograft and gracilis tendon autograft reconstruction

OP-110 **Lukasz Matuszewski** (Poland)

18:33 Are the radiological landmarks reliable guidance for femoral tunnel positioning during medial patello - femoral ligament (MPFL) reconstruction?

OP-111 **Jaroslaw Felus, Bartlomiej Kowalczyk** (Poland)



18:38 Quadriceps tendon turnaround for MPFL reconstruction: the anatomical differences between
OP-112 the patellar origins of the quadriceps tendon and MPFL

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
OP-113 of the pediatric research in sports medicine (PRISM) society

Curtis Vandenberg, Natalya Sarkisova, J. Lee Pace, Jason Rhodes, Daniel Green (USA)

18:48 *Discussion*

18:58 Conclusion

OP-114 **Franck Accadbled (France)**

- 14:30** **EPOS STUDY GROUP: HIP AND LOWER LIMB** **GRAND BALLROOM B**
16:30 **IN SKELETAL DYSPLASIA AND METABOLIC DISEASES**
Chairs: **Rudolf Ganger** (Austria) and **Ralph J.B. Sakkers** (Netherlands)
- 14:30** Hip and lower limb in skeletal dysplasia and metabolic diseases - etiology and clinical features
OP-115 **Hakan Ömeroglu** (Turkey)
- 14:40** Specific hip problems in skeletal dysplasia
OP-116 **Renata Pospischill** (Austria)
- 14:50** Epi-, metaphyseal dysplasia – disease specific obstacles during treatment (abnormal joint configuration, amount of lengthening, ...)
OP-117 **Salih Marangoz** (Turkey)
- 15:00** Treatment of lower limb deformities in hypophosphataemic rickets
OP-118 **Christof Radler** (Austria)
- 15:10** Multiple hereditary exostosis disease – treatment of malalignment and impingement (including hip impingement)
OP-119 **John Herzenberg** (USA)
- 15:20** Osteogenesis imperfecta – deformity correction and prevention of fractures
OP-120 **Robert Rödl** (Germany)
- 15:30** Congenital pseudarthrosis of the tibia (CPT) – obtaining and maintaining of fusion (resection and compression, X-union, contralateral vascularized fibula)
OP-121 **Mark Eidelman** (Israel)
- 15:40** Lower limb deformities in achondroplasia
OP-122 **Rudolf Ganger** (Austria)
- 15:50** Clubfoot deformity in skeletal dysplasia
OP-123 **Cristina Alves** (Portugal)
- 16.30** *Coffee break*



- 17:00** **EPOS STUDY GROUP: MUSCULOSKELETAL TUMORS, INFECTIONS & ARTHRITIS GROUP SYMPOSIUM: WHAT IS HOT IN BONE & JOINT INFECTIONS?** **GRAND BALLROOM B**
19:00 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 Alves** (Portugal)
- 17:15** Should we get oropharynx swabs for every child with a possible diagnosis of bone or joint infection?
OP-126 **Dimitri 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 Eidemann** (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)

GRAND BALLROOM AB

08:00 UPPER LIMB

08:49 Chairs: **Sebastian Farr** (Austria) and **Ivan Hvid** (Norway)
E-moderator: **Sharon Eylon** (Israel)

08:00 Normal glenoid ossification in pediatric and adolescent shoulders mimics Bankart lesions:
OP-134 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
OP-135 **Tatiana Tikhonenko**, **Sergey Golyana** (Russia)

08:10 Triangular fibrocartilage complex repair in pediatric patients
OP-136 **Alex Balboa**, **Kendra Eckstein**, **Kevin Little** (USA)

08:15 *Discussion*

08:25 Changes on computed tomography after arthroscopic debridement and microfracture for
OP-137 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
OP-138 **Jaroslav Michal Deszczynski**¹, **Tomasz Albrewczynski**¹, **Aaron Huser**², **Melih Civan**³,
Dror Paley², **David Feldman**² (¹Poland, ²USA, ³Turkey)

08:35 Preliminary results of physiolysis and vicker's ligament excision of madelung deformity in
OP-139 Léry-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 Narayanan ¹ , Menal Huroy ¹ , Clarissa Encisa ¹ , Ashley Ferkul ¹ , Kerr Graham ² , Kishore Mulpuri ¹ , Darcy Fehlings ¹ (¹ Canada, ² Australia)	
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	<i>Discussion</i>	
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 dorsi transfer for restoration of elbow flexion in children with arthrogryposis Olga Agranovich , Alexey Baidurashvili , 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 Thamkunanon ¹ , Norazian Kamisan ² (¹ Thailand, ² Malaysia)	
09:35	<i>Discussion</i>	
09:48 10:13	PRESIDENTIAL GUEST LECTURE Terje Terjsten (Norway)	GRAND BALLROOM AB
10:13 10:18	AWARDS 2019	GRAND BALLROOM AB
10:18 10:28	PRO MAXIMIS MERITIS Dietrich Schlenzka (Finland)	GRAND BALLROOM AB
10:28 10:53	TRANSFER PRESIDENCY	GRAND BALLROOM AB
10:53	Coffee break	

11:30 CONGENITAL

GRAND BALLROOM AB

12:52 Chairs: **Darko Anticevic** (Croatia) and **Roberto Schiavon** (Italy)
E-moderator: **Robert Rödl** (Germany)

11:30 Molecular diagnostics of skeletal dysplasias by next generation sequencing - first
OP-147 experience of a single genetic outpatient department from Serbia in the pilot phase prior to establish of the skeletal dysplasias center
Marija Mijovic¹, Jelena Ruml Stojanovic¹, Aleksandra Miletic¹, Borut Peterlin², Ales Maver², Brankica Dimitrijevic¹, Hristina Janeski¹, Goran Cuturilo¹ (¹Serbia, ²Slovenia)

11:35 Gait analysis in children with proximal femoral focal deficiency
OP-148 **Lorena Floccari, Kelly Jeans, J Anthony Herring, Charles Johnston, Lori Karol** (USA)

11:40 Radiologic outcomes of containment surgery for dysplastic hips in Morquio IVA syndrome
OP-149 **William Mackenzie, Mihir Thacker, Amit Nemade, Kenneth Rogers, Colleen Ditro** (India)

11:45 *Discussion*

11:55 Humeral deformity correction, intramedullary stabilisation and complications in severe
OP-150 osteogenesis imperfect
Sanjay Chilbule, Assad Qureshi, Claire Wagstaff, Nicolas Nicolaou, Stephen Giles, James Fernandes (United Kingdom)

12:00 Intramedullary nailing with supplemental plate and screw fixation of long bones of
OP-151 patients with osteogenesis imperfecta: short-term follow-up
Jeanne M. Franzone¹, Kenneth J. Rogers, Richard W. Kruse (USA)

12:05 Prevalence of vitamin D deficiency in pediatric limb lengthening patients
OP-152 **Jessica Rivera, Nequesha Mohamed, Iciar Davila Castrodad, John Herzenberg** (USA)

12:10 *Discussion*

12:20 Complex treatment of CPT
OP-153 **Sergey Khmyzov, Andrey Pashenko** (Ukraine)

12:25 Combined technique with hydroxyapatite coated intramedullary nails in treatment of
OP-154 anterolateral bowing of congenital pseudarthrosis of tibia
Arnold Popkov¹, Pierre Lascombes², Mikan Lazovic³, Sinisa Ducic³, Dmitry Popkov¹ (¹Russia, ²Switzerland, ³Serbia)

12:30 Congenital generalized ligamentous laxity increases the rate of residual instability and
OP-155 re-dislocation after patellar realignment in children and adolescents. Results from a retrospective study on a cohort of 78 children
Giovanni Trisolino, Giovanni Luigi Di Gennaro, Giovanni Gallone, Stefano Stallone, Eloenora Olivotto, Marta Favero, Stefano Stilli (Italy)

12:35 *Discussion*

12:53 CLOSING REMARKS

GRAND BALLROOM AB

13:00



- 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 Velez (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 epiphysiodesis 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)

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



- 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, Franciso 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, Aleksandr Pozdeev, Victor Vilensky (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 Albrewczyński¹, Aaron Huser², Melih Civan³, Dror Paley², 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 Feldman¹, 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 Degueudre, Pierre Ghyselincq (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 physseal 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 Józwiak, 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)
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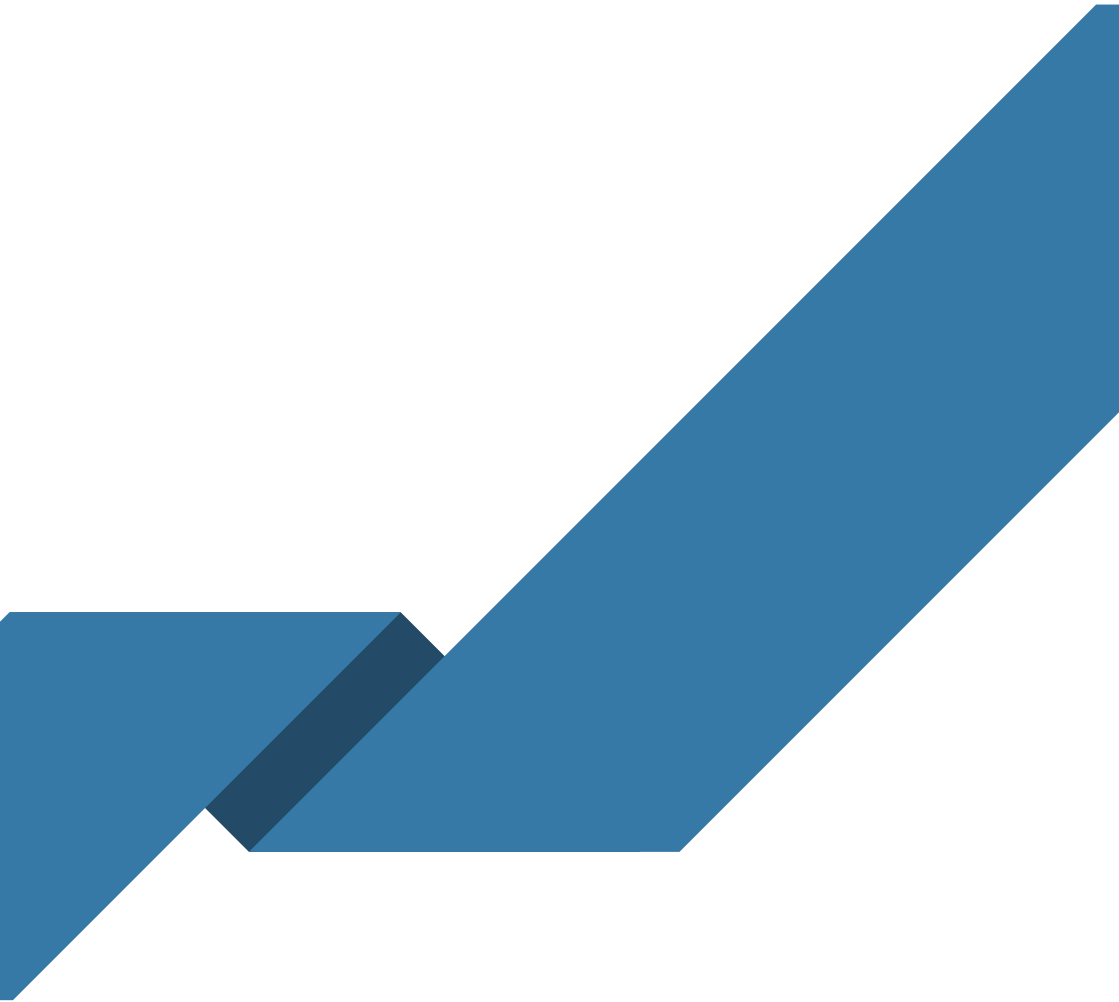
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