



EUROSPINE 2018

Preliminary Scientific Programme
oral presentations

Wednesday, 19 September, 2018

- 08:30 **OPENING**
Local Hosts: Luis Alvarez Galovich, Ferran Pellisé, Juan Bago
- 08:33 **WELCOME ADDRESS**
EUROSPINE President, Frank Kandziora
- 08:36 **INTRODUCTION TO THE SCIENTIFIC PROGRAMME**
The blinded peer review process of the Programme Committee
Chair Programme Committee 2018

08:40 – 10:00 **Non-operative Treatment, Medical Economics, New Techniques**
Main Plenary
Chairs: Frank Kandziora, Frankfurt Germany; Stavros Stavridis, Thessaloniki, Greece

- 1** QUALITY, SAFETY, AND VALUE OF INNOVATION IN SCOLIOSIS SURGERY: INTRAOPERATIVE SKULL FEMORAL TRACTION AND NAVIGATED SEQUENTIAL DRILLING
Alejandro Peiro-Garcia, Jonathan Bourget-Murray, Garielle Brown, Madalene Earp, David Parsons, Fabio Ferri-de-Barros
Department of Surgery, Division of Pediatric Orthopaedic Surgery; Alberta Children's Hospital, University of Calgary, Canada

- 2** PREOPERATIVE PREDICTION OF COST AND CATASTROPHIC COST (CC) IN ADULT SPINE DEFORMITY (ASD) SURGERY: FEASIBILITY ANALYSIS OF PREDICTIVE ANALYTICS TO ESTABLISH 90 DAY BUNDLED PAYMENTS
Miquel Serra-Burriel, Justin S Smith, Jeffrey L Gum, Michael P Kelly, Ferran Pellisé, Ahmet Alanay, Emre R Acaroglu, Francisco J Sánchez Pérez-Gruoso, Frank S. Kleinstueck, Ibrahim Obeid, Samrat Yermaneni, Richard Hostin, Corinna Zygourakis, Virginie Lafage, Frank J. Schwab, Douglas C. Burton, Shay Bess, Christopher P. Ames, ESSG European Spine Study Group, ISSG International Spine Study Group
Vall d' Hebron Institut of Research (VHIR), Barcelona, Spain

- 3** WILL COST TRANSPARENCY IN THE OPERATING THEATRE CAUSE SURGEONS TO CHANGE THEIR PRACTICE
Andrew Glennie, Sean Barry, Jacob Alant, Bill Oxner, Sean Christie
Department of Surgery, Dalhousie University, Halifax, Nova Scotia, Canada

- 4** A DUAL SCREW TECHNIQUE FOR VERTEBRAL COMPRESSION FRACTURES USING ROBOTIC NAVIGATION IN THE OSTEOPENIC LUMBAR SPINE: AN IN-VITRO BIOMECHANICAL ANALYSIS
Michael Steinmetz, Jessica Riggleman, Jonathan Harris, John Butler, Chelsea Wright, Mir Hussain, Bryan Ferrick, Brandon Bucklen
Department of Neurosurgery, Cleveland Clinic Lerner College of Medicine, Ohio, USA; Musculoskeletal Education and Research Center, A Division of Globus Medical Inc., Audubon, Pennsylvania, USA; School of Medicine, Case Western Reserve University, Cleveland, Ohio, USA; School of Biomedical Engineering, Science and Health Systems, Drexel University, Philadelphia, Pennsylvania, USA

- 5** INCREASED RADIATION BUT NO BENEFITS IN PEDICLE SCREW ACCURACY USING INTRAOPERATIVE CT BASED NAVIGATION COMPARED TO FREE HAND TECHNIQUE IN IDIOPATHIC SCOLIOSIS SURGERY
Wiktor Urbanski
Dept of Orthopaedic Surgery and Traumatology, University Hospital Wroclaw, Poland
- 6** PEDICLE SCREW PLACEMENT WITH AUGMENTED REALITY SURGICAL NAVIGATION USING INTRAOPERATIVE 3D IMAGING
Adrian Elmi-Terander, Erik Edstrom, Kyrre Pedersen, Halldor Skulason, Gustav Burstrom, Anastasios Charalampidis, Frederik Stahl, Michael Fagerlund, Michael Soderman, Paul Gerdhem
Karolinska University Hospital, Dept of Neurosurgery, Stockholm, Sweden
- 7** KINESIOTAPING IN THE TREATMENT OF CHRONIC MECHANICAL LOW BACK PAIN: A RANDOMIZED CLINICAL TRIAL
Lourdes Peñalver, Julio Domenech, Julia Schmitt, Javier Ballester, Alejandro Alvarez-Llanas, Juan Francisco Lison
Dept of Orthopedic Surgery and Rehabilitation, Valencia, Spain
- 8** COGNITIVE BEHAVIOURAL THERAPY SUPPORTED WITH INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE TREATMENT OF CHRONIC LOW BACK PAIN: A RANDOMIZED CLINICAL TRIAL
Julio Domenech, Lourdes Peñalver, Eva Del Rio, Azucena Garcia-Palacios, Rocio Herrero, Aida Ezzedine, Cristina Botella, Julia Schmitt, Alejandro Alvarez-Llanas, Rosa Baños
Dept of Orthopedic Surgery, Valencia, Spain
- 9** SPINE SURGERY IN PATIENTS WITH LONG-TERM ORAL ANTICOAGULATION: A PROPENSITY SCORE MATCHED COHORT STUDY
Romy Sweda, Anne F Mannion, David O’Riordan, Daniel Haschtmann, Dezső Jeszenszky, Tamas Fekete
Spine Center, Schulthess Klinik, Zurich, Switzerland; Medical University of Vienna, Vienna, Austria; Department of Cardiology, Bern University Hospital and University of Bern, Bern, Switzerland

10:00-10:30 **BREAK**

10:30 – 12:00	Debates Main Plenary
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10:30 **Debate 1: Education - eLearning**
Moderation: Emre Acaroglu, Ankara, Turkey

11:15 **Debate 2: Low Back Pain**
Moderation: Tamas Fekete, Zürich, Switzerland

12:00 **EUROSPINE LUNCH SYMPOSIUM 1**
Cervical and Thoracolumbar Osteotomies
Learning from the Experts. Surgical Video Session in cooperation with OOT
Chairs: Hossein Mehdian, Nottingham, UK; Klaus Schnake, Fürth, Germany

12:00 **EUROSPINE LUNCH SYMPOSIUM 2**
Surgical Management of Spinal Disorders in patients with Parkinson's Disease
Chairs: José Cavanilles Walker, Barcelona, Spain; Sleiman Haddad, Barcelona, Spain

14:00 – 15:20 **CONCURRENT SESSIONS**
QUICK FIRES - SHORT COMMUNICATIONS

14:00 **Adult Deformity / Growing Spine**

- QF1** COMPENSATORY MECHANISMS OF LOWER LIMB IN ADULT SPINAL DEFORMITY -IS THE ANKLE DORSIFLEXED OR PLANTER-FLEXED?-
Mitsuru Takemoto, Takayoshi Shimizu
Dept of Orthopaedic and Spine Surgery, Kyoto City Hospital, Kyoto, Japan
- QF2** GAIT ASSESSMENT IS IMPORTANT FOR POSTOPERATIVE EVALUATION OF CORRECTIVE FUSION FOR ADULT SPINAL DEFORMITY: A 2-YEAR FOLLOW-UP
Hideyuki Arima, Yu Yamato, Tomohiko Hasegawa, Daisuke Togawa, Go Yoshida, Tomohiro Banno, Shin Oe, Yuki Mihara, Hiroki Ushirozako, Yukihiko Matsuyama
Dept of Orthopedic Surgery, Hamamatsu, Japan
- QF3** APPROPRIATE RESTORATION OF THE INDIVIDUALIZED SAGITTAL PLANE (GAP SCORE) AND PRESENCE OF SACROILIAC FIXATION INDEPENDENTLY DETERMINE MECHANICAL COMPLICATIONS AFTER 3-COLUMN OSTEOTOMIES
Caglar Yilgor, Suna Lahut, Yasemin Yavuz, kadir abul, Can Berk Asaroglu, Ibrahim Obeid, Frank S. Kleinstueck, Francisco Javier sanchez Perez-Grueso, Emre Acaroglu, Ferran Pellise, Ahmet Alanay, European Spine Study Group
Department of Orthopedics and Traumatology, Acibadem Mehmet Ali Aydinlar University, Istanbul, Turkey; Comprehensive Spine Center, Acibadem Maslak Hospital, Istanbul, Turkey; Department of Biostatistics, Ankara University, Ankara, Turkey
- QF4** IMPACT OF ADULT SCOLIOSIS ON THE TYPE OF SAGITTAL PROFILE
Javier Pizones, Montserrat Baldan-Martín, Francisco Javier Pérez-Grueso, Caglar Yilgor, Alba Vila-Casademunt, Ibrahim Obeid, Ahmet Alanay, Frank Kleinstück, Emre Acaroglu, Ferran Pellisé
Dept Orthopaedic Surgery, Spine Unit. Hospital Universitario La Paz, Madrid, Spain
- QF5** THE STRATEGY OF TREATMENT SEVER ADULT SPINAL DEFORMITY (SASD) WITH RESPIRATORY FAILURE
Zhiyue Shi, Jingming Xie, Yingsong Wang, Ying Zhang, Ni Bi, Tao Li, Zhi Zhao
Department of Orthopedics, The 2nd Affiliated Hospital of Kunming Medical University, Yunnan Province, P.R.CHINA
- QF6** SURGICAL VERSUS NON-OPERATIVE TREATMENT OF ADULT SPINAL DEFORMITY: A SYSTEMATIC REVIEW AND META-ANALYSIS
Dominique A Rothenfluh, Marco Germann, David Kieser
University of Oxford, Oxford, UK

- QF7** DEVELOPMENT OF DEPLOYABLE PREDICTIVE MODELS FOR MCID OF 2 YEAR OUTCOMES ACROSS ALL COMMONLY USED HRQOL INSTRUMENTS IN ADULT SPINAL DEFORMITY SURGERY: RESULTS IN 570 PATIENTS FROM 17 HOSPITALS
Miquel Serra-Burriel, Michael P Kelly, Justin S Smith, Jeffrey L Gum, Ferran Pellisé, Ahmet Alanay, Emre R Acaroglu, Francisco J Sánchez Pérez-Grueso, Frank S. Kleinstueck, Ibrahim Obeid, Virginie Lafage, Frank Schwab, Christopher I, Shaffrey, Douglas C. Burton, Shay Bess, Christopher P. Ames, ESSG European Spine Study Group, ISSG International Spine Study Group
Vall d'Hebron Institute of Research (VHIR), Barcelona, Spain
- QF8** SUCCESSFUL CREATION OF DEPLOYABLE PREOPERATIVE PREDICTIVE RISK CALCULATORS FOR INDIVIDUAL PATIENT EVENT-FREE SURVIVORSHIP FOR MAJOR COMPLICATIONS, HOSPITAL READMISSIONS AND UNPLANNED SURGERY FOLLOWING ADULT SPINAL DEFORMITY (ASD) SURGERY
Sleiman Haddad, Miquel Serra-Burriel, Alba Vila-Casademunt, Francisco Javier Sánchez Pérez-Grueso, Shay Bess, Emre R Acaroglu, Justin S Smith, Frank S Kleinstueck, Virginie Lafage, Ibrahim Obeid, Frank Schwab, Christopher I. Shaffrey, Ahmet Alanay, Christopher P. Ames, Ferran Pellisé, International Spine Study Group, ESSG European Spine Study Group
Vall d'Hebron Institute of Research (VHIR), Barcelona, Spain
- QF9** WOULD SCREW-BASED LONG INSTRUMENTATION WITH S2AI LIMIT THE IMPROVEMENT OF HRQOL?
ChangChun Tseng, Zhen Liu, ZhiHui Zhao, Jie Li, Bin Wang, Yang Yu, Yong Qiu, ZeZhang Zhu
Spine surgery Drum Tower Hospital of Nanjing University Medical School, Nanjing 210008, China
- QF10** RADIOGRAPHIC OUTCOME AND COMPLICATIONS AFTER SINGLE-LEVEL LUMBAR EXTENDED PEDICLE SUBTRACTION OSTEOTOMY FOR FIXED GLOBAL SAGITTAL MALALIGNMENT: A RETROSPECTIVE ANALYSIS OF 55 ADULT SPINAL DEFORMITY PATIENTS WITH MINIMUM 2-YEAR FOLLOW-UP
Thomas Buell, James Nguyen, Marcus Mazur, Jeffrey Mullin, Juanita Garces, Davis Taylor, Chun-Po Yen, Mark Shaffrey, Christopher Shaffrey, Justin Smith
Department of Neurosurgery, University of Virginia Health System, Charlottesville, Virginia, USA
- QF11** EFFECT OF SATELLITE RODS CONSTRUCTION TO PREVENT ROD FRACTURES FOLLOWING 3-COLUMN OSTEOTOMY IN PATIENTS WITH ADULT SPINAL DEFORMITY
Yu Yamato, Tomohiko Hasegawa, Daisuke Togawa, Go Yoshida, Tomohiro Banno, Hideyuki Arima, Shin Oe, Yuki Mihara, Hiroki Ushirozako, Yukihiro Matsuyama
Dept of Orthopaedic Surgery, Hamamatsu University School of Medicine, Hamamatsu, Japan
- QF12** ISYQOL DISCRIMINATES ADOLESCENTS WITH SPINAL DEFORMITIES SUBGROUPS BETTER THAN THE SRS-22 QUESTIONNAIRE
Fabio Zaina, Antonio Caronni, Sabrina Donzelli, Luciana Sciumè, Francesca Di Felice, Stefano Negrini
ISICO (Italian Scientific Spine Institute), Milan, Italy; Università degli Studi di Milano, Residency Program in Physical and Rehabilitation Medicine, Milan, Italy; Department of Neurorehabilitation Sciences, Casa di Cura del Policlinico, Milano, Italy; Department of Clinical and Experimental Sciences, University of Brescia, Italy; IRCCS Fondazione Don Gnocchi, Milan, Italy
- QF13** OUTCOMES OF SYNDROMIC SCOLIOSIS PATIENTS TREATED WITH MAGNETICALLY CONTROLLED GROWTH RODS
Shahnawaz Haleem, David Kieser, Dan Mardare, Chrishan Thakar, Colin Nnadi
Spinal Unit, Oxford University Hospitals, Oxford, UK
- QF14** CLINICAL AND RADIOLOGIC OUTCOMES OF POSTERIOR ONLY HEMIVERTEBRA RESECTION AND SHORT SEGMENT FUSION WITH PEDICLE SCREW FIXATION IN CHILDREN YOUNGER THAN 5 YEARS: MINIMUM 10 YEARS FOLLOW-UP
Meric Enercan, Yunus Akman, Isik Karalok, Emel Kaya, Cem Sever, Yesim Erol, Tunay Sanli, Sinan Kahraman, Selhan Karadereler, Azmi Hamzaoglu
Istanbul Spine Center, Turkey
- QF15** SPINAL GROWTH TETHERING AROUND THE APICAL VERTEBRAE LEADS TO ASYMMETRIC GROWTH AS A MECHANISM OF SPINAL DEFORMITY CORRECTION IN KYPHOSIS AND SCOLIOSIS
Alaaeldin Ahmad, Loai Aker, Ahmad Ghanem
Orthopedic, west bank, Palestine

- QF16** HUMAN WHARTON'S JELLY CELLS ACTIVATE DEGENERATIVE NUCLEUS PULPOSUS CELLS IN VITRO
Zhihua Han, Yan Zhang, Liang Gao, Dike Ruan
Department of Orthopaedic Surgery, Navy General Hospital of PLA, Beijing, China
- QF17** IDENTIFYING THE LINK BETWEEN TRP CHANNELS AND LOW BACK PAIN
Karin Wuertz-Kozak, Aleksandra Sadowska, Ermioni Touli, Wolfgang Hitzl, Oliver N. Hausmann
Institute for Biomechanics, ETH, Zurich, Switzerland
- QF18** 3'-UTR POLYMORPHISMS OF MTHFR AND TS ASSOCIATED WITH OSTEOPOROTIC VERTEBRAL COMPRESSION FRACTURE SUSCEPTIBILITY IN POSTMENOPAUSAL WOMEN
Tae-Keun Ahn, In-Bo Han
Dept of Orthopedic Surgery, CHA university, Seongnam, Korea
- QF19** THE EFFECT OF QUASI-PHYSIOLOGICAL LOADING ON THE INTERSEGMENTAL COUPLED MOTION BEHAVIOUR OF THE HUMAN THORACIC SPINE: AN IN VITRO STUDY USING ENTIRE RIB CAGE SPECIMENS
Christian Liebsch, Hans-Joachim Wilke
Institute of Orthopaedic Research and Biomechanics, Ulm, Germany
- QF20** THE THREE-DIMENSIONAL DEFORMITY IN AIS DEPENDS ON THE TYPE OF CURVATURE
Ayman Assi, Mohammad Karam, Wafa Skalli, Claudio Vergari, Ziad Bakouny, Joeffroy Otayek, Aren Joe Bizdikian, Fares Yared, Nour Khalil, Khalil Kharrat, Ismat Ghanem
Faculty of Medicine, University of Saint-Joseph, Beirut
- QF21** BIOMECHANICAL ANALYSIS OF A NOVEL CF/PEEK VERTEBRAL BODY REPLACEMENT IN COMBINATION WITH A SCREW AND ROD SYSTEM (CF/PEEK VS. TITANIUM)
Daniel Adler, Schmoelz Werner, Spicher Anna, Stephanie Goerke, Michael Akbar
Spine Center, Department of Orthopaedic Surgery, Trauma Surgery and Division of Spinal Cord Injury, Ruprecht-Karls-University Heidelberg, Germany
- QF22** INTRA-WOUND APPLICATION OF VANCOMYCIN POWDER MAY INCREASE GR (-) WOUND INFECTIONS: A CASE-CONTROL STUDY
Emre Acaroglu, Prashant Adhikari, Vugar Nabi Nabiyev, Selim Ayhan, Selcen Yuksel, Selcuk Palaoglu
¹ Ankara Spine Center, Ankara, Turkey; ² Fellow spine surgeon, ARTES Spine Center at Acibadem Ankara Hospital, Ankara, Turkey; ³ Department of Orthopaedics and Traumatology, ARTES Spine Center at Acibadem Ankara Hospital, Ankara, Turkey; ⁴ Department of Neurological Surgery, ARTES Spine Center at Acibadem Ankara Hospital, Ankara, Turkey; ⁵ Department of Biostatistics, Yildirim Beyazit University, Ankara, Turkey; ⁶ Department of Neurological Surgery, ARTES Spine Center at Acibadem Ankara Hospital, Ankara, Turkey
- QF23** VANCOMYCIN POWDER MIXED WITH AUTOGENOUS BONE GRAFT AND BONE SUBSTITUTE MAY DECREASE THE RISK OF DEEP SURGICAL SITE INFECTION IN DEGENERATIVE LUMBAR SPINES FUSION SURGERY - AN AMBISPECTIVE STUDY
Po-Hsin Chou, Yu-Cheng Yao, presented by Shih-Tien Wang
Department of Orthopedic Surgery, School of Medicine, National Yang Ming University; Department of Orthopedic and Traumatology, Taipei Veterans General Hospital, Taipei, Taiwan
- QF24** LYMPHOCYTE COUNT AT 4 DAYS POSTOPERATIVELY AND CRP LEVEL AT 7 DAYS POSTOPERATIVELY: RELIABLE AND USEFUL MARKERS FOR SURGICAL SITE INFECTION FOLLOWING INSTRUMENTED SPINAL FUSION
Eiichiro Iwata, Yusuke Yamamoto, Hideki Shigematsu, Hiroshi Nakajima, Masato Tanaka, Akinori Okuda, Yasuhito Tanaka
Nara City Hospital, Narashi, Japan
- QF25** WHICH PARAMETERS OTHER THAN AND IN ADDITION TO NEUROLOGICAL STATUS ARE RELEVANT ON SURGICAL DECISION MAKING IN SPINAL TUBERCULOSIS?
Emre Acaroglu, Prashant Adhikari, Selcen Yuksel, Selim Ayhan, Bigyan Bhandari, Binod Bujukachhe
¹Ankara Spine Center, Ankara, Turkey; ²Fellow Spine Surgeon, ARTES Spine Center, Ankara, Turkey & Consultant, Orthopedic & Spine Surgeon, Grande International Hospital, Kathmandu, Nepal; ³Department of Biostatistics, Yildirim Beyazit University, Ankara, Turkey; ⁴Department of Neurological Surgery, ARTES Spine Center at Acibadem Ankara Hospital, Ankara, Turkey; ⁵Consultant, Orthopedic & Spine Surgeon, Grande International Hospital, Kathmandu, Nepal; ⁶Director - Spine Services, Consultant, Orthopedic & Spine Surgeon, Grande International Hospital, Kathmandu, Nepal

- QF26** INDICATORS FOR NON-ROUTINE DISCHARGE FOLLOWING CERVICAL DEFORMITY-CORRECTIVE SURGERY: RADIOGRAPHIC, SURGICAL, AND PATIENT-RELATED PREDICTORS
Peter Passias, Cole Bortz, Frank Segreto, Samantha Horn, Virginie Lafage, Jusitn Smith, Breton Line, Gregory Mundis, Khaled Kebaish, Michael Kelly, Themistocles Protopsaltis, Daniel Sciubba, Alexandra Soroceanu, Eric Klineberg, Douglas Burton, Robert Hart, Frank Schwab, Shay Bess, Christopher Shaffrey, Christopher Ames, International Spine Study Group
 NYU Langone Orthopaedic Hospital, Dept of Orthopaedic Surgery, New York, NY; Hospital for Special Surgery, Dept of Orthopaedic Surgery, New York, NY; Department of Neurosurgery, University of Virginia Medical Center, Charlottesville, VA; San Diego Center for Spinal Disorders, La Jolla, CA; Department of Orthopaedic Surgery, Johns Hopkins University School of Medicine, Baltimore MD; Department of Orthopaedic Surgery, Washington University, St. Louis, MO; Department of Orthopaedic Surgery, University of Calgary, Calgary, AB, Canada; Department of Orthopaedic Surgery, University of California, Davis, Davis, CA; Department of Orthopaedic Surgery, University of Kansas Medical Center, Kansas City, Kansas; Department of Orthopaedic Surgery, Swedish Neuroscience Institute, Seattle, WA; Rocky Mountain Scoliosis and Spine, Denver, CO
- QF27** SIGNIFICANT DIFFERENCES IN MORBIDITY WHEN COMPARING ADVERSE EVENTS FOR CERVICAL AND LUMBAR SPINE SURGERY - PROSPECTIVELY GRADED WITH SAVES
Stian Solumsmoen, Rachid Bech-Azeddine
 Dept. of Spine Surgery, Rigshospitalet-Glostrup, Copenhagen, Denmark
- QF28** ANY VERTEBRAL SEGMENT MAY BE CHOSEN AS UPPER-INSTRUMENTED VERTEBRA IF IDEAL INDIVIDUALIZED SAGITTAL SHAPE AND ALIGNMENT IS REACHED
Ahmet Alanay, suna lahut, yasemin yavuz, kadir abul, Hatice H Tanriover, Javier Pizones, Ibrahim obeid, Frank CK Kleinstuck, Francisco Javier Sanchez Perez-Grueso, Emre Acaroglu, Ferran Pellise, Caglar Yilgor, ESSG European Spine study Group
¹Department of Orthopedics and Traumatology, Acibadem Mehmet Ali Aydinlar University, Istanbul, Turkey; ²Comprehensive Spine Center, Acibadem Maslak Hospital, Istanbul, Turkey; ³Department of Biostatistics, Ankara University, Ankara, Turkey; ⁴Spine Surgery Unit, Bordeaux University Hospital, Bordeaux, France; ⁵Spine Surgery Unit, Hospital Universitari Vall d'Hebron, Barcelona, Spain; ⁶Spine Center Division, Department of Orthopedics and Neurosurgery, Schulthess Klinik, Zurich, Switzerland; ⁷Spine Surgery Unit, Hospital Universitario La Paz, Madrid, Spain; ⁸Ankara ARTES Spine Center, Ankara, Turkey; ⁹Vall Hebron Institute of Research (VHIR) Barcelona-Spain
- QF29** METABOLISM OF THE INTERVERTEBRAL DISC CELLS UNDER THE INFLUENCE OF INFLAMMATORY FACTORS
Liudmila Bardonova, Evgenii Belykh, Vadim Byvaltsev, Mark Preul, Morgan Giers
¹Irkutsk State Medical University, Irkutsk, Russia; ²Barrow Neurological Institute, Phoenix, AZ, USA; ³Oregon State University, Corvallis, OR, USA
- QF30** UROGENITAL DYSFUNCTION AFTER CAUDA-EQUINA SYNDROME: A PROSPECTIVE LONG-TERM STUDY OF SPHINCTER AND SEXUAL FUNCTION
Adam Devany, Robert Crawford, Lennel Lutchman, Ruth Doherty, Nick Steele
 Norfolk and Norwich University Hospitals, Norwich, UK

14:00

Degenerative Spine, Non-Operative Techniques

- QF31** PROSPECTIVE COMPARISON OF THE THERAPEUTIC VALUE OF PERIRADICULAR AND FACET JOINT INFILTRATIONS
Chris Lindemann, Felix Hochberger, Timo Zippelius, Alexander Hölzl, Patrick Strube
 Dept of Spine Surgery, Eisenberg, Germany
- QF32** TOWARD A SURGICAL BABEL: A 4-NATION SURVEY ON VARIATIONS IN SURGICAL INDICATION FOR DEGENERATIVE SPINAL DISORDERS
Bertrand Debono, Luis Alvarez Galovich, Olivier Hamel, Guillaume Lonjon, Florian Ringel
 Dept of Neurosurgery, Capio-Clinique des Cèdres, Comebarrieu, France
- QF33** GENDER- AND AGE-SPECIFIC ANALGESIA FOR EARLY POSTOPERATIVE PAIN MANAGEMENT AFTER LUMBAR DECOMPRESSIVE SURGERY: A RANDOMIZED CLINICAL TRIAL
In-Soo Oh, Kee-Yong Ha, Young-Yul Kim, Sang-Il Kim
 Dept of Orthopedic surgery, Incheon, Korea

- QF34** THE RELATIONSHIP BETWEEN COMPENSATORY MECHANISMS OF RESIDUAL KYPHOTIC DEFORMITY AFTER OSTEOPOROTIC VERTEBRAL FRACTURES AND HEALTH-RELATED QUALITY OF LIFE
Keishi Maruo, Toshiya Tachibana, Fumihiko Arizumi, Kazuki Kushiyama, Kishima Kazuya, Shinichi Yoshiya
Dept of Orthopaedic Surgery, Nishinomiya, Japan
- QF35** DELAYED PERCUTANEOUS VERTEBROPLASTY IS OF CLINICAL BENEFIT IN THE MANAGEMENT OF OSTEOPOROTIC VERTEBRAL COMPRESSION FRACTURES
Rory Morrison, Helen Vint, Cyrus Jensen, Paul Sanderson
¹⁻⁴Department of Orthopaedic Spinal Surgery, Newcastle Hospitals NHS Foundation Trust, Royal Victoria Infirmary, Richardson Road, Newcastle upon Tyne, UK; ^{2,3}Spinal Unit, Department of Orthopaedics, Northumbria Healthcare NHS Foundation Trust, Woodhorn Lane, Ashington, Northumberland, UK
- QF36** THE PREVALENCE OF INCIDENTAL AND SYMPTOMATIC LUMBAR SYNOVIAL FACET CYSTS
Stein Janssen, Paul Ogink, Joseph Schwab
Dept of Orthopaedic Surgery, Massachusetts General Hospital, Boston, USA
- QF37** MICRO-DECOMPRESSION ALONE AS GOOD AS DECOMPRESSION PLUS INSTRUMENTED FUSION FOR LUMBAR DEGENERATIVE SPONDYLOLISTHESIS. A PRAGMATIC NON-INFERIORITY STUDY FROM THE NORWEGIAN REGISTRY FOR SPINE SURGERY
Ivar Magne Austevoll, Rolf Gjestad, Tore Solberg, Jens Ivar Brox, Kjersti Storheim, Frode Rekeland, Erlend Hermansen, Kari Indrekvam, Christian Hellum
Kysthospitalet in Hagevik, Orthopedic Clinic, Haukeland University, Bergen, Norway
- QF38** BACTERIA IN DISCS - PAIN CAUSING OR CONTAMINATION
Peter Fritzell, Hans Tropp, Bodil Jönsson, Olle Hägg, Paul Gerdhem, Per Ekman, Siv Andersson, Björn Knutsson, Anders Lundin, Christina Welinder-Olsson
Futurum Academy for Health and Care, Falun, Sweden
- QF39** RE-OPERATION FOR RECURRENT LUMBAR DISC HERNIATION DOES NOT ADVERSELY AFFECT LONG TERM OUTCOME
Andreas Kiilerich Andresen, Christian Støttrup, Leah Carreon, Mikkel Ø. Andersen
Spine Surgery and Research, Spine Center of Southern Denmark, Middelfart, Denmark; Department of Clinical Research, University of Southern Denmark
- QF40** EFFECTIVENESS OF AN ANNULAR CLOSURE DEVICE IN PATIENTS THAT MEET RCT SCREENING CRITERIA VS. A REAL-WORLD POPULATION: RETROSPECTIVE ANALYSIS OF A PROSPECTIVE REGISTRY
Adisa Kursumovic, Stefan Rath
Department of Neurosurgery, Spinal Surgery and Interventional Neuroradiology, DONAUISAR Klinikum Deggendorf, Germany
- QF41** ABDOMINAL TRUNK MUSCLE WEAKNESS IS ASSOCIATED WITH CHRONIC LOW BACK PAIN AND LOCOMOTIVE SYNDROME
Norihiro Oku, Satoshi Kato, Hideki Murakami, Satoru Demura, Noriaki Yokogawa, Takaki Shimizu, Ryo Kitagawa, Hiroyuki Tsuchiya
Department of Orthopaedic Surgery, Graduate School of Medical Sciences, Kanazawa University, Kanazawa, Japan
- QF42** PARASPINAL MUSCLE, FACET JOINT, AND DISC PROBLEMS: RISK FACTORS FOR ADJACENT SEGMENT DEGENERATION AFTER LUMBAR FUSION
Jiin Kang, Unyoung Choi, Kyunghyun Kim, presented by Sunguk Kuh
Dept of Neurosurgery, Gangnam Severance Hospital, Seoul, South Korea
- QF43** ADJACENT SEGMENT DISC DEGENERATION IS ASSOCIATED WITH THE INDIVIDUALIZED SAGITTAL SHAPE AND ALIGNMENT
Anne Mannion, Dominique A. Rothenfluh, Jeremy CT Fairbank, Yasemin Yavuz, Anand H Segar, Ahmet Alanay, Caglar Yilgor
Spine Center Division, Department of Research and Development, Schulthess Klinik, Zurich, Switzerland; Oxford University Hospitals NHS Foundation Trust, Oxford, England; Department of Biostatistics, Ankara University, Ankara, Turkey; Department of Orthopedics and Traumatology, Acibadem Mehmet Ali Aydinlar University, Istanbul, Turkey
- QF44** COMPARISON OF A LUMBAR GAP SCORE TO PI-LL MISMATCH TO PREDICT ADJACENT SEGMENT DISEASE IN THE DEGENERATIVE LUMBAR SPINE
Dominique A Rothenfluh, Étienne Bourassa-Moreau, Ahmet Alanay, Caglar Yilgor
University of Oxford, Oxford, UK

QF45

SEGMENTAL RECRUITMENT DURING FLEXION-EXTENSION MOTION AFTER CERVICAL DISC ARTHROPLASTY USING A MOBILE CORE PROSTHESIS
Avinash Patwardhan, Robert Havey, Saeed Khayatzaeh, Leonard Voronov, Gerard Carandang
Musculoskeletal Biomechanics Laboratory, Edward Hines, Jr. VA Hospital, Hines, Illinois. Department of Orthopedic Surgery and Rehabilitation, Loyola University Medical Center, Maywood, Illinois; USA

15:20-15:50 BREAK

15:50 – 17:30 Degenerative Cervical Spine, Tumor
Main Plenary

- 10** PATIENT-REPORTED OUTCOMES AFTER SURGICAL TREATMENT FOR DEGENERATIVE DISORDERS OF THE CERVICAL SPINE: A LARGE-SCALE STUDY OF PROSPECTIVELY COLLECTED DATA
Anne F Mannion, Hans-Jürgen Becker, Daniel Haschtmann, Tamas F Fekete, Dezső Jeszenszky, Markus Loibl, François Porchet, Frank Kleinstück
Schulthess Klinik, Zürich, Switzerland
- 11** IS LAMINECTOMY AND FUSION THE BETTER CHOICE FOR LONG SEGMENTS CERVICAL SPONDYLOTIC MYELOPATHY WITH SIGNAL CHANGES ON MAGNETIC RESONANCE IMAGING? A COMPARISON OF TWO POSTERIOR SURGERIES.
Jia Nan Zhang, Yong Fan, Qi Ning Wu, Ding Jun Hao
Xi'an Hong Hui Hospital, Xi'an, China
- 12** A COMPARISON OF POSTOPERATIVE CHANGES OF CERVICAL SAGITTAL ALIGNMENT AND BALANCE AFTER LAMINOPLASTY BETWEEN CSM AND OPLL PART II: IMPACTS ON NEUROLOGIC IMPROVEMENT AND AXIAL NECK PAIN
Hironobu Sakaura, Atsunori Ohnishi, Akira Yamagishi, Tetsuo Ohwada
Dept of Orthopaedic Surgery, Amagasaki, Japan
- 13** THE REOPERATION RATES AFTER ANTERIOR FUSION AND LAMINOPLASTY OF THE CERVICAL SPINE: A 26-YEAR PERIOD SURVIVAL FUNCTION ANALYSIS
Ko Hashimoto^{1,2}, Toshimi Aizawa¹, Haruo Kanno¹, Eiji Itoi¹, Shoichi Kokubun¹
¹ Dept. of Orthopaedic Surgery, Tohoku University Graduate School of Medicine, Sendai, Japan; ² Dept. of Orthopaedic Surgery, Takeda General Hospital, Aizu-Wakamatsu, Fukushima, Japan
- 14** CAN POST-OPERATIVE CSVA, C2 SLOPE AND T1 SLOPE BE PREDICTED ACCURATELY IN CERVICAL DEFORMITY SURGERY?
Nicholas Stekas, Themistocles Protopsaltis, Justin Smith, Alex Soroceanu, Renaud Lafage, Brian Neuman, Han Jo Kim, Peter Passias, Greg Mundis, Eric Klineberg
Department of Orthopaedic Surgery, NYU Langone Orthopedic Hospital, NYU Langone Health, New York, USA
- 15** THE INFLUENCE OF CERVICAL SPONDYLOLISTHESIS ON CLINICAL PRESENTATION AND SURGICAL OUTCOME IN PATIENTS WITH DCM: ANALYSIS OF A GLOBAL COHORT
Aria nouri, So Kato, George Yang, Joseph Cheng, Michael Fehlings
Department of Neurosurgery, University of Cincinnati College of Medicine, USA; Department of Neurosurgery, University of Toronto, Canada; Department of Orthopedic Surgery University of Tokyo, Japan

- 16** MORPHOMETRIC ANALYSIS AND SELECTION OF ALTERNATIVE C2 POSTERIOR INSTRUMENTATION IN THE CASES WITH HIGH RIDING VERTEBRAL ARTERY
Jong-Hyeok Park, Jae Taek Hong, Il Sup Kim
Department of Neurosurgery, Suwon, South Korea
- 17** COMPARATIVE STUDY OF SPINAL RECONSTRUCTION AFTER TOTAL EN BLOC SPONDYLECTOMY
Katsuhito Yoshioka, Hideki Murakami, Satoru Demura, Satoshi Kato, Noriaki Yokogawa, Takaki Shimizu, Norihiro Oku, Ryo Kitagawa, Hiroyuki Tsuchiya
Dept of Orthopaedic Surgery, Kanazawa, Japan
- 18** SYMPTOMATIC IMPLANT/CONSTRUCT FAILURE AFTER METASTATIC SPINE TUMOUR SURGERY
Naresh Kumar, Ravish Patel, Dhiraj Sonawane, Jonathan Tan, Nivetha Ravikumar, Barry Tan, Aravind Kumar
University Spine Centre, National University Hospital, Singapore
- 19** TOTAL SPONDYLECTOMY FOR ENNEKING STAGE III GIANT CELL TUMOR OF THE MOBILE SPINE
Noriaki Yokogawa, Hideki Murakami, Satoru Demura, Satoshi Kato, Katsuhito Yoshioka, Takaki Shimizu, Norihiro Oku, Ryo Kitagawa, Hiroyuki Tsuchiya
Dept of Orthopaedic Surgery, Kanazawa Univ, Kanazawa, Japan
- 20** THE SURGICAL MARGINS AND COMPLETE RESECTION AS PREDICTORS OF LOCAL RECURRENCE AND SURVIVAL ON PRIMARY OSTEOSARCOMA OF THE SPINE: A SYSTEMATIC REVIEW
Bruno Pombo, Rómulo Silva, Filomena Ferreira, Margarida Areias, Ana Pinheiro, Paulo Gonçalves
Dept of Orthopaedics, Viana do Castelo, Portugal
- 21** A NOVEL TREATMENT ALGORITHM FOR SPINAL METASTASES FROM KIDNEY AND THYROID CANCERS
Satoshi Kato, Hideki Murakami, Satoru Demura, Katsuhito Yoshioka, Noriaki Yokogawa, Takaki Shimizu, Norihiro Oku, Ryo Kitagawa, Hiroyuki Tsuchiya
Dept of Orthopaedic Surgery, Kanazawa University, Kanazawa, Japan

17:30 – 18:30 WELCOME RECEPTION

Foyer / Exhibition Area

Thursday, 20 September, 2018

08:30 – 10:00 Degenerative Thoracolumbar Spine
Main Plenary

- 22** COMBINED MECHANICAL AND PRO-INFLAMMATORY STRESS CONTRIBUTES TO WEAKENING OF THE ANULUS FIBROSUS IN A BOVINE AF ORGAN CULTURE APPROACH
Taryn Saggese, Lydia Moll, Kelly Wade, Anna Weigl, Graciosa Teixeira, Anita Ignatius, Hans-Joachim Wilke, Cornelia Neidlinger-Wilke
Institute of Orthopaedic Research and Biomechanics, Ulm, Germany

- 23** ASSOCIATION BETWEEN MULTIMORBIDITY AND THE TREATMENT OUTCOME IN SYMPTOMATIC LUMBAR SPINAL STENOSIS IN THE ELDERLY: RESULTS OF THE TWO-YEAR FOLLOW-UP OF THE LUMBAR STENOSIS OUTCOME STUDY (LSOS)
Isaac Gravestock, Ulrike Held, Johann Steurer, Jakob M. Burgstaller
¹Division of General Internal Medicine, Bern University Hospital, University of Bern, Bern, Switzerland; ²Horten Centre for Patient Oriented Research and Knowledge Transfer, University of Zurich, Zurich, Switzerland; ³Zurich University, Department of Biostatistics, Zurich, Switzerland
- 24** LONG TERM OUTCOME AFTER LUMBAR DISC HERNIATION SURGERY AT DIFFERENT AGES
Tobias Lagerbäck, Hans Möller, Paul Gerdhem
Department of Clinical Science, Intervention and Technology, Karolinska Institutet, Stockholm, Sweden
- 25** POSTOPERATIVE SICK LEAVE IS CORRELATED TO THE LENGTH OF PRE-OPERATIVE SICK LEAVE IN PATIENTS WITH HERNIATED LUMBAR DISC TREATED WITH DISCECTOMY.
Mikkel Ø Andersen, Carsten Ernst, Jesper Rasmussen, Søren Dahl, Leah Y Carreon
Spine Surgery and Research, Spine Center of Southern Denmark, Middelfart, Denmark
- 26** INFERIOR OUTCOME AND INCREASING REOPERATION RATES WITH PROLONGED SYMPTOM DURATION IN LUMBAR DISC HERNIATION SURGERY.
Andreas Kiilerich Andresen, Christian Støttrup, Leah Carreon, Mikkel Ø. Andersen
Spine Surgery and Research, Spine Center of Southern Denmark, Middelfart, Denmark
Department of Clinical Research, University of Southern Denmark
- 27** INTERSPINOUS PROCESS DISTRACTION COMPARED TO NONOPERATIVE CARE FOR MODERATE LUMBAR DEGENERATIVE DISC DISEASE
Hazem Eltahawy, Matthew Gornet, Alexander Bailey, Wayne Cheng, Rick Sasso, Edward Dohring, Sylvain Palmer, Jamal Taha, Francine Schranck, Anne Copay
St Mary Mercy Hospital, Livonia, MI, USA
- 28** RESULTS OF A PROSPECTIVE, RANDOMIZED MULTI-CENTER STUDY WITH 2-YEAR FOLLOW-UP TO COMPARE THE PERFORMANCE OF DECOMPRESSION WITH AND WITHOUT INTERLAMINAR STABILIZATION
Jorg Franke, Katharina Meiler, Steffen Sola
Dept of orthopedics, Klinikum Magdeburg Germany
- 29** INTERTRANSVERSE FUSION RATES FOLLOWING NON-INSTRUMENTED LUMBAR FUSION. RESULTS FROM A RANDOMIZED DOUBLE BLIND CLINICAL TRIAL OF ABM/P-15 VERSUS ALLOGRAFT
Andreas Kiilerich Andresen, Michael Kjær Jacobsen, Annette Jespersen, Leah Carreon, Søren Overgård, Mikkel Ø. Andersen
Spine Surgery and Research, Spine Center of Southern Denmark, Middelfart, Denmark; Department of Orthopaedic Surgery and Traumatology, Odense University Hospital, Denmark; Department of Clinical Research, University of Southern Denmark

30 ADJACENT DISC DEGENERATION AFTER LUMBAR TOTAL DISC REPLACEMENT OR NON-OPERATIVE TREATMENT: A RANDOMISED STUDY WITH EIGHT-YEAR FOLLOW-UP

Håvard Furunes (^{1,2,3}), *Christian Hellum* (⁴), *Ansgar Espeland* (^{5, 6}), *Jens Ivar Brox* (^{2, 7}), *Milada Cvancarova Småstuen* (^{1, 8}), *Linda Berg* (^{9, 10}), *Kjersti Storheim* (¹)
¹FORMI, Oslo University Hospital, Norway; ²University of Oslo, Norway; ³Surgical dept, Gjøvik Hospital, Norway; ⁴Division of Orthopaedic Surgery, Oslo University Hospital, Norway; ⁵Dept of Radiology, Haukeland University Hospital, Norway; ⁶Dept of Clinical Medicine, University of Bergen, Norway; ⁷Dept for Physical Medicine and Rehabilitation, Oslo University Hospital, Norway; ⁸Faculty of Health Sciences, Oslo Metropolitan University, Norway; ⁹Dept of Radiology, Nordland Hospital, Norway; ¹⁰Dept of Clinical Medicine, University of Tromsø, Norway

31 LUMBAR ARTIFICIAL DISC REPLACEMENT WITH A NOVEL CONTROLLED MOBILE CORE DEVICE: FIVE YEAR RESULTS FROM A RANDOMIZED CONTROLLED FDA TRIAL

Rolando Garcia, James Yue
Orthopedic Care Center, Aventura, USA

32 DOES A WEB-BASED SPINE PLATFORM FEATURING SOCIAL INTERACTION AND ANIMATED INFORMATION AFFECT PATIENT REPORTED OUTCOMES IN PATIENTS UNDERTAKING LUMBAR SPINE FUSION SURGERY? A RANDOMIZED CLINICAL TRIAL

Janni Strøm, Claus Vinther Nielsen, Lene Bastrup Jørgensen, Malene Laursen
Elective Surgery Centre, Silkeborg Regional Hospital, Denmark

10:00-10:30 BREAK

10:30 – 12:00	Presidential Address and Medal Lecture Main Plenary
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10:30 EUROSPINE Medal Lecture 2018
Martin E. Schwab, Zürich, Switzerland

11:00 EUROSPINE Presidential Address
Frank Kandziora, Frankfurt, Germany, EUROSPINE President 2018

11:30 Honorary Member 2018

11:40 Announcement of the EUROSPINE Grants 2018
Björn Rydevik, Gothenburg, Sweden

11:50 EuSSAB

12:00-14:00 EUROSPINE LUNCH SYMPOSIUM, Thursday

12:00 EUROSPINE LUNCH SYMPOSIUM 3
Main Plenary
Adolescent Spinal Deformities and Treatment Options
Chair: Hossein Mehdiian, Nottingham, UK; Ken Cheung, HongKong, China

14:00 – 15:20 Growing Spine, Minimally Invasive Spine Surgery**Main Plenary**

- 33** THE 75 DEGREES THRESHOLD IN CEREBRAL PALSY WITH SCOLIOSIS IN ONLY POSTERIOR SURGERY WITH PEDICLE SCREWS UNTIL WHEN WE CAN JUST OBSERVE SCOLIOSIS PROGRESSION IN CP PATIENTS WITH GMFCS IV AND V?
Min Seok Kang, Tae Hoon Kim, In Seok Son, Suk Ha Lee, Seung Woo Suh, Jin Ho Hwang
CM General Hospital, Dept of Orthopedic Surgery, Seoul, South Korea
- 34** EFFECT OF BODY MASS INDEX PERCENTILE ON CLINICAL AND RADIOGRAPHIC OUTCOME AFTER POSTERIOR INSTRUMENTED FUSION FOR ADOLESCENT IDIOPATHIC SCOLIOSIS
Laura Scaramuzzo, Fabrizio Giudici, Giuseppe Barone, Leone Minoia, Marino Archetti, Domenico Ravier, Antonino Zagra
Spine Surgery Division 1, Milan, Italy
- 35** A CRITICAL THORACIC KYPHOSIS IS REQUIRED TO PREVENT SAGITTAL PLANE DETERIORATION IN SELECTIVE THORACIC FUSIONS IN LENKE I AND II AIS
Dominique A Rothenfluh, Alexandra Stratton, Colin Nnadi, Nicolas Beresford-Cleary
University of Oxford, Oxford, UK
- 36** LESS IS MORE: SIGNIFICANT CORONAL CORRECTION OF AIS DEFORMITY PREDICTS THORACIC HYPOKYPHOSIS
Oded Hershkovich, Areena Dsouza, Paul Rushton, Edward Bayley, Michael Grevitt
The Centre for Spinal Studies and Surgery (CSSS); Queen's Medical Centre; Nottingham University Hospitals, UK
- 37** WHERE TO STOP DISTALLY IN LENKE MODIFIER C AIS WITH LUMBAR CURVE MORE THAN 60°: L3 OR L4?
Yong Qiu, Xiaodong Qin, Leilei Xu, Bangping Qian, Zhen Liu, Zezhang Zhu
Dept of Spine Surgery, Drum Tower Hospital of Nanjing University Medical School, China
- 38** SINGLE ROD INSTRUMENTATION FOR THE POSTERIOR CORRECTION AND FUSION OF NEUROMUSCULAR SCOLIOSIS
Farhaan Altaf, Hilali Noordeen
Royal National Orthopaedic Hospital, Stanmore, London
- 39** COMPARATIVE STUDY OF MINIMALLY INVASIVE PERCUTANEOUS PEDICLE SCREW FIXATION AND OPEN SURGERY IN THE TREATMENT OF THORACOLUMBAR FRACTURES
Yongyuan Zhang, Xiji Wang, Dingjun Hao, Honghui Sun
Department of Spine Surgery, Honghui Hospital, Xi'an Jiaotong University College of Medicine, Xi'an, Shaanxi, China

40 INTRAOPERATIVE STIMULATED AND SPONTANEOUS EMG MONITORING FOR IMPROVING THE ACCURACY AND SAFETY OF MINIMALLY INVASIVE PERCUTANEOUS LUMBOSACRAL SCREW PLACEMENT

Pablo Mendivil, Jesus Lafuente, Guillermo Vergara, Alberto Aleman, Nicolas Sampron, Guillermo Vergara

Spinal Unit - Department of General Neurosurgery; Neurocentro Salta - IMAC Instituto Medico de Alta Complejidad; Salta, Argentina

41 DOES L4/5 POSE ADDITIONAL NEUROLOGIC RISK IN LATERAL LUMBAR INTERBODY FUSION?

Toshiyuki Shirahata, Stephan Salzmann, Oliver Sax, Jingyan Yang, Jennifer Shue, Andrew Sama, Cammisa Frank, Federico Girardi, Alexander Hughes

Department of Orthopedic Surgery, Spine and Scoliosis Service, Hospital for Special Surgery, New York, USA

42 A SYSTEMATIC REVIEW ON THE OUTCOMES OF ENDOSCOPIC DISCECTOMY AND MINIMAL INVASIVE DISCECTOMY COMPARED TO CONVENTIONAL MICRODISCECTOMY

Giuseppe Lambros Morassi, Sherief Elsayed, Nasir Quraishi

Centre for Spinal Studies and Surgery, Nottingham University Hospitals, Nottingham, UK

15:20-15:50 **BREAK**

15:50 – 17:05 Adult Deformity, Epidemiology Main Plenary
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43 ARE ALTERATIONS IN THORACIC KYPHOSIS AND LUMBAR LORDOSIS IN ASD MORE PRONOUNCED AT THE PROXIMAL OR DISTAL LEVELS?

Ayman Assi, Virginie Lafage, Wafa Skalli, Nour Khalil, Mario Mekhael, Renée Maria Saliby, Georges Kawkabani, Ziad Bakouny, Mohammad Karam, Aren Joe Bizdikian, Fares Yared, Chris Labaki, Joe Ghanimeh, Joeffroy Otayek, Georges Mjaess, Michel Salameh, Gaby Kreichati, Khalil Kharrat, Ismat Ghanem
Faculty of Medicine, University of Saint-Joseph in Beirut

44 EFFECTS OF RESTORING INDIVIDUALIZED SAGITTAL SHAPE AND ALIGNMENT ON MECHANICAL COMPLICATIONS AND PATIENT-REPORTED OUTCOMES IN ELDERLY PATIENTS FUSED TO PELVIS

Caglar Yilgor, suna lahut, kadir abul, Irem E Sayin, Javier Pizones, ibrahim obeid, frank kleinstuck, Francisco Javier Sanchez, Perez-Grueso, emre acaroglu, Ferran Pellise, Ahmet Alanay, ESSG European Spine Study Group

¹Department of Orthopedics and Traumatology, Acibadem Mehmet Ali Aydinlar University, Istanbul, Turkey; ²Comprehensive Spine Center, Acibadem Maslak Hospital, Istanbul, Turkey; ³Department of Biostatistics, Ankara University, Ankara, Turkey; ⁴Spine Surgery Unit, Bordeaux University Hospital, Bordeaux, France; ⁵Spine Surgery Unit, Hospital Universitari Vall d'Hebron, Barcelona, Spain; ⁶Spine Center Division, Department of Orthopedics and Neurosurgery, Schulthess Klinik, Zurich, Switzerland; ⁷Spine Surgery Unit, Hospital Universitario La Paz, Madrid, Spain; ⁸Ankara ARTES Spine Center, Ankara, Turkey; ⁹Vall Hebron Institute of Research (VHIR) Barcelona-Spain

45 SCOLIOSIS CORRECTIVE SURGERY IMPACT ON HEALTH RELATED QUALITY OF LIFE

Louis Boissiere, Mitsuru Takemoto, Derek Cawley, David Kieser, Anouar Bourghli, Caglar Yilgor, Ahmet Alanay, Emre Acaroglu, Ferran Pelisse, Frank Kleinstuck; Francisco J. Perez-Grueso; Olivier Gille; Jean-Marc Vital, Ibrahim Obeid, ESSG Bordeaux University Hospital, Bordeaux, France

- 46** RISK BENEFIT ASSESSMENT OF MAJOR VERSUS MINOR OSTEOTOMIES FOR FLEXIBLE AND RIGID CERVICAL DEFORMITY CORRECTION
Peter Passias, Samantha Horn, Renaud Lafage, Virginie Lafage, Justin Smith, Breton Line, Shaleen Vira, Gregory Mundis, Bassel Diebo, Cole Bortz, Frank Segreto, Themistocles Protopsaltis, Han Jo Kim, Alan Daniels, Eric Klineberg, Douglas Burton, Robert Hart, Frank Schwab, Shay Bess, Christopher Shaffrey, Christopher Ames, International Spine Study Group
Departments of Orthopaedic and Neurologic Surgery, NYU Langone Orthopedic Hospital/NY Spine Institute, New York, USA
- 47** COMPARISON OF BEST VERSUS WORST CLINICAL RESULTS IN THE ADULT DEFORMITY PATIENTS TWO YEARS AFTER CORRECTIVE LONG FUSION FROM THORACIC TO PELVIS
Daisuke Togawa, Shin Oe, Tomohiko Hasegawa, Yu Yamato, Go Yoshida, Tomohiro Banno, Hideyuki Arima, Yuki Mihara, Hiroki Ushirozako, Yukihiko Matsuyama
Div of Geriatric Musculoskeletal Health, Hamamatsu Univ. Japan
- 48** ROTEM-GUIDED TRANSFUSION DURING PEDICLE SUBTRACTION OSTEOTOMY FOR ADULT SPINAL DEFORMITY: A PROPENSITY SCORE-MATCHED COHORT ANALYSIS
Thomas Buell, Davis Taylor, Ching-Jen Chen, Jeffrey Mullin, Marcus Mazur, Chun-Po Yen, Mark Shaffrey, Justin Smith, Christopher Shaffrey, Bhiken Naik
Dept of Neurosurgery, University of Virginia Health System, Charlottesville, Virginia, USA
- 49** COMPLICATIONS AFTER SPINOPELVIC FIXATION WITH ILIAC SCREWS IN 260 ADULT PATIENTS WITH 2-YEAR MINIMUM FOLLOW-UP
James Nguyen, Thomas Buell, Tony Wang, Jeffrey Mullin, Marcus Mazur, Chun-Po Yen, Christopher Shaffrey, Justin Smith
Department of Neurological Surgery, University of Virginia, Charlottesville, Virginia, United States
- 50** PROBABILITY OF SEVERE FRAILTY DEVELOPMENT AMONG OPERATIVE AND NON-OPERATIVE ADULT SPINAL DEFORMITY PATIENTS: AN ACTUARIAL SURVIVORSHIP ANALYSIS OVER A 3-YEAR PERIOD
Peter Passias, Frank Segreto, Samantha Horn, Cole Bortz, Cheongeun Oh, Virginie Lafage, Renaud Lafage, Justin Smith, Alan Daniels, Breton Line
NYU Langone Orthopaedic Hospital, Departments of Neurological and Orthopaedic Surgery, Manhattan, USA
- 51** PREGNANCY AND CHILDBIRTH IN PATIENTS WITH IDIOPATHIC SCOLIOSIS
Sergey Kolesov, Alexander Stenkov, Andrey Panteleyev
N.N. Priorov Central Institute of Traumatology and Orthopedics, Moscow, Russia

17:10

EUROSPINE NEW MEMBER COCKTAIL AND GENERAL ASSEMBLY

Members only

20:00

OFFICIAL CONGRESS EVENING, Café del Mar, Barcelona
 (At own expense)

08:30 – 10:00 **Trauma, Diagnostics and Imaging**
Main Plenary

- 52** CLINICAL AND RADIOLOGICAL OUTCOMES OF CONSERVATIVE TREATMENT FOR UNILATERAL SAGITTALLY SPLIT FRACTURES OF THE C1 LATERAL MASS
Jong-Beom Park, Young-Yul Kim
Dept of Orthopaedic Surgery, The Catholic University of Korea, Seoul, Korea
- 53** FUNCTIONAL OUTCOME OF ELDERLY PATIENTS TREATED FOR ODONTOID FRACTURE. A MULTICENTER STUDY
Giorgio Lofrese, Antonio Musio, Antonio Martucci, Roberto Donati, Federico De Iure, Francesco Cultrera, Pasquale De Bonis
Neurosurgery Division, Ospedale "M. Bufalini", Cesena, Italy; Department of Spine Surgery, Ospedale Maggiore "C.A. Pizzardi", Bologna, Italy; Neurosurgery Division, University Hospital S. Anna, Cona di Ferrara, Italy
- 54** THE WINDOW OF OPPORTUNITY FOR SURGICAL DECOMPRESSION IN PATIENTS WITH ACUTE TRAUMATIC CERVICAL SPINAL CORD INJURY
Marko Jug, Nataša Kežar, Matej Cimerman, Fajko Bajrovi
Dept of Traumatology, Ljubljana, Slovenia
- 55** EARLY VERSUS DELAYED DECOMPRESSION FOR TRAUMATIC CERVICAL SPINAL CORD INJURY: APPLICATION OF THE AOSpine SUBAXIAL CERVICAL SPINAL INJURY CLASSIFICATION SYSTEM TO GUIDE SURGICAL TIMING
Yong Fan, Jin Peng Du, Ding Jun Hao
Dept of Spine surgery, Xi'an China
- 56** IN CERVICAL SPONDYLOTIC MYELOPATHY, IN THE EVALUATION OF C2-7 ANGLE, SPINAL CANAL STENOSIS IS UNDERESTIMATED WHEN THE DIFFERENCE BETWEEN MRI AND DCTM EXTENSION POSITION OR XP EXTENSION POSITION IS LARGER THAN 17 DEGREES
Atsushi Tagami, Makoto Osaki, Keiichi Tsuda, Shinji Adachi, Shuta Yamada, Chieko Noguchi
Dept of Orthopaedics Surgery, Nagasaki, Japan
- 57** PREDICTORS OF KYPHOTIC DEFORMITY AFTER POSTERIOR FIXATION FOR THORACOLUMBAR BURST FRACTURE
Masahiro Hirahata, Keisuke Ishii, Tomoaki Kitagawa
Dept. of Orthop. Surg., Teikyo Univ., Tokyo, Japan
- 58** SPINAL PRIMARY PAIN GENERATOR IDENTIFICATION BY CT-SPECT
GABRIEL TENDER, Erin Fannin, Anthony DiGiorgio
Dept of Neurosurgery, LSU, New Orleans, USA
- 59** MULTIFIDUS MUSCLE MORPHOLOGY, FUNCTION AND BODY COMPOSITION IN UNIVERSITY LEVEL ICE HOCKEY PLAYERS WITH AND WITHOUT LOW BACK PAIN
Maryse Fortin, Amanda Rizk, Stephane Frenette, Mathieu Boily, Hassan Rivaz
1) PERFORM Centre, Concordia University, Montreal, Quebec, Canada; 2) Concordia University, Department of Electrical Engineering, Montreal, Quebec, Canada; 3) McGill University Health Centre, Department of Diagnostic Radiology, Montreal, Quebec, Canada

- 60** 3D MODELING IN THE PLANNING OF SPINAL DEFORMITY SURGERIES
Sergey Kolesov, Alexander Stenkov, Andrey Panteleyev
N.N. Priorov Central Institute of Traumatology and Orthopedics, Moscow, Russia
- 61** THE CORRELATION ANALYSIS OF RADIOLOGIC PARAMETERS OF PELVIS WITH THE PELVIC INCIDENCE
Chang-Hoon Jeon, Nam-Su Chung, Han-Dong Lee
Dept of Orthopedic surgery, Suwon, South Korea
- 62** DOES PARASPINAL FATTY MUSCULAR DEGENERATION INFLUENCE SURGICAL INDICATION IN DEGENERATIVE LUMBAR LISTHESIS?
Christina Polan, Marcus Jäger, Marcel Haversath, Tjark Tassemeier
Orthopedic and Trauma Department, University Hospital Essen, Germany

10:00-10:30 **BREAK**

10:30 – 12:00 **The ‘Best of Show’ and Award papers**
 The highest scored abstract submissions
The 2018 Best Podium Award will be evaluated out of the presentations 63-69 of this session.
*The audience is asked to vote via the **EUROSPINE App***
[Main Plenary](#)

- 63** NOVEL MUTATIONS OF CCDC40 ARE ASSOCIATED WITH THE INCIDENCE OF IDIOPATHIC SCOLIOSIS POSSIBLY VIA DEFECTIVE CEREBROSPINAL FLUID FLOW
Leilei Xu, Chao Xia, Yong Qiu, Zezhang Zhu
Department of Spine Surgery, the Affiliated Drum Tower Hospital of Nanjing University Medical School, Nanjing, China
- 64** QUALITY OF LIFE IN 1519 TREATED OR UNTREATED MALES AND FEMALES WITH IDIOPATHIC SCOLIOSIS
Elias Diarbakerli, Anna Grauers, Aina Danielsson, Allan Abbott, Paul Gerthem
Dept of Clinical Sciences, Intervention and Technology, Karolinska Institutet, Stockholm, Sweden
- 65** IMPACT OF SERIOUS ADVERSE EVENTS ON HEALTH-RELATED QUALITY OF LIFE MEASURES FOLLOWING SURGERY FOR ADULT SYMPTOMATIC LUMBAR SCOLIOSIS
Justin Smith, Christopher Shaffrey, Michael Kelly, Christine Baldus, Lawrence Lenke, Stephen Lewis, Stefan Parent, Shay Bess, Frank Schwab, Keith Bridwell
Dept of Neurosurgery, University of Virginia, Charlottesville, VA, USA; Dept of Orthopedic Surgery, Washington University, St Louis, MO, USA; Dept of Orthopedic Surgery, Columbia University, New York, NY, USA; UHN-Orthopedics, Toronto Western Hospital, Toronto, ON, Canada; Sainte-Justine University Hospital, Montreal, Quebec, Canada; Denver International Spine Center, Presbyterian St. Luke's/Rocky Mountain Hospital for Children, Denver, CO, USA; Hospital for Special Surgery, New York, NY, USA

- 66** IN-HOSPITAL COMPLICATION RATE FOLLOWING MICROENDOSCOPIC VERSUS OPEN LUMBAR LAMINECTOMY: A PROPENSITY SCORE-MATCHED ANALYSIS
Kazuhiro Soma, Takeshi Oichi, Yasushi Oshima
Dept of Orthopedic Surgery, Tokyo, Japan
- 67** SUCCESSFUL CLINICAL OUTCOMES FOLLOWING SURGERY FOR SEVERE CERVICAL DEFORMITY ARE DEPENDENT UPON ACHIEVING SUFFICIENT CERVICAL SAGITTAL ALIGNMENT
Themistocles Protopsaltis, Nicholas Stekas, Justin Smith, Alex Soroceanu, Renaud Lafage, Alan Daniels, Han Jo Kim, Peter Passias, Greg Mundis, Eric Klineberg, Kojo Hamilton, Munish Gupta, Virginie Lafage, Robert Hart, Frank Schwab, Doug Burton, Shay Bess, Christopher Shaffrey, Christopher Ames, Christopher Ames, ISSG
Department of Orthopaedic Surgery, NYU Langone Orthopedic Hospital, NYU Langone Health, New York, USA
- 68** WHAT FACTORS CHARACTERIZE AN INDICATION FOR SURGERY IN LUMBAR SPINAL STENOSIS?
Anne F Mannion, Miquel Serra-Burriel, Hans-Jürgen Becker, Selina Nauer, François Porchet, Frank Kleinstück, Jakob M Burgstaller, Daniel Haschtmann, Florian Brunner, Mazda Farshad, Tamas Fekete, Sebastian Winkhofer, LSOS-Group
Schulthess Klinik, Zürich, Switzerland; Horten Centre, Zürich, Switzerland; University Hospital Zürich, Zürich, Switzerland
- 69** OUTCOME EVALUATION: HRQOL VS PATIENT SATISFACTION
Susana Núñez-Pereira, Miquel Serra-Burriel, Alba Vila-Casademunt, Sleiman Haddad, Francesca Soler-Santassusagna, Juan Bagó, Francisco J Sánchez Pérez-Grueso, Emre R Acaroglu, Frank Kleinstueck, Ibrahim Obeid, Ahmet Alanay, Ferran Pellisé, ESSG European Spine Study Group
Vall d'Hebron Institute of Research (VHIR), Barcelona, Spain

11:30 **Winner of 2018 Grammer/European Spine Journal Award**

11:40 **Max Aebi Award for Clinical Sciences**

11:50 **Announcement of the Best Podium Award**

12:00-14:00 EUROSPINE LUNCH SYMPOSIA, Friday

12:00 **EUROSPINE LUNCH SYMPOSIUM 5**

Main Plenary

Aging Spine – How to Achieve Optimal Results?

Chairs: Klaus Schnake, Fürth, Germany; Stavros Stavridis, Thessaloniki, Greece

12:00 **EUROSPINE LUNCH SYMPOSIUM 6**

Spondylolysis/Spondylolisthesis

Chairs: Ferran Pellisé, Barcelona, Spain; Luigi Nasto, Genoa, Italy

12:00

EUROSPINE LUNCH SYMPOSIUM 7 The Role of Spine Registries Today (Spine Tango)

14:00 – 15:20 **CONCURRENT SESSIONS**
(QUICK FIRES - SHORT COMMUNICATIONS)

14:00	New Techniques and Minimally Invasive Spine Surgery Main Plenary
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- QF46** TWO-YEAR OUTCOMES OF PATIENTS TREATED WITH BVN ABLATION FOR THE RELIEF OF CHRONIC LOW BACK PAIN: RESULTS OF THE SMART TRIAL
Bernhard Meyer, Peter vajkoczy, Rick Sasso, Sotirios Michalitsis, Al Rhyne, Jeff Fishground, Jorg Franke
Department of orthopedics, Klinikum Magdeburg Germany
- QF47** NON-FUSION THORACOSCOPIC ANTERIOR VERTEBRAL BODY TETHERING FOR ADOLESCENT IDIOPATHIC SCOLIOSIS: PRELIMINARY RESULTS OF A SINGLE EUROPEAN CENTER
Ahmet Alanay, Barbaros O Cebeci, Kadir Abul, Suna Lahut, Gökhan Ergene, Sahin Senay, Caglar Yilgor
Department of Orthopedics and Traumatology, Acibadem Mehmet Ali Aydınlar University, Istanbul, Turkey; Comprehensive Spine Center, Acibadem Maslak Hospital, Istanbul, Turkey; Thoracic surgery, Acibadem Maslak Hospital, Istanbul, Turkey; Acibadem Mehmet Ali Aydınlar University School of Medicine, Turkey
- QF48** ANTERIOR VERTEBRAL BODY TETHERING FOR THE TREATMENT OF IDIOPATHIC SCOLIOSIS: FEASIBILITY, OUTCOMES, AND COMPLICATIONS
Firoz Miyanji, Luigi Nasto, Fahimeh Karimi, Eva Habib, Andrea Simmonds
Dept of Orthopaedic Surgery, Vancouver, Canada
- QF49** DOES THE USE OF ROBOTIC GUIDANCE AND NAVIGATION REDUCE THE INCIDENCE OF PEDICLE SCREW REVISIONS?
Victor E. Staartjes, Anita M. Klukowska, Marc L. Schröder
Department of Neurosurgery, Bergman Clinics, Amsterdam, The Netherlands
- QF50** MINIMALLY INVASIVE CANTILEVER CORRECTION TECHNIQUE FOR ADULT SPINAL DEFORMITY USING REDUCTION PERCUTANEOUS PEDICLE SCREW SYSTEM - TECHNICAL NOTES-
Sei Terayama, Yasuo Otori, Azusa Sudo
Dept. of Orthopedic, Tokyo, Japan
- QF51** DEVELOPMENT OF PREOPERATIVE COMPUTER MODELS WHICH ACCURATELY PREDICT ANSWERS TO ALL INDIVIDUAL QUESTIONS ON SRS-22 AT 2 YEAR FOLLOW UP: A STEP TOWARDS INDIVIDUALIZED MEDICINE
Miquel Serra-Burriel, Michael P Kelly, Justin S Smith, Jeffrey L Gum, Ferran Pellisé, Ahmet Alanay, Emre R Acaroglu, Francisco Javier Sánchez Pérez-Gruoso, Frank S Kleinstueck, Ibrahim Obeid, Virginie Lafage, Frank J. Schwab, Christopher I. Shaffrey, Douglas C. Burton, Shay Bess, Christopher P. Ames, ESSG European Spine Study Group, ISSG International Spine Study Group
Vall d'Hebron Institute o Research (VHIR), Barcelona, Spain
- QF52** APPLICATION OF GELATIN SPONGE IMPREGNATED WITH A MIXTURE OF 3 DRUGS TO INTRAOPERATIVE NERVE ROOT BLOCK TO PROMOTE EARLY POSTOPERATIVE RECOVERY OF LUMBAR DISC HERNIATION
Jin Peng Du, Yong Fan, Ding Jun Hao
Dept of spine surgery, Xi'an, China
- QF53** ANULAR CLOSURE REDUCES RECURRENT HERNIATION AND REOPERATION IN A HIGH-RISK POPULATION FOLLOWING LUMBAR DISCECTOMY: 3-YEAR DATA FROM A MULTI-CENTER, PROSPECTIVE, RANDOMIZED TRIAL
Claudius Thomé, Peter Vajkoczy, Geoffrey Lesage, Volkmar Heidecke
Department of Neurosurgery, Innsbruck Medical University, Innsbruck, Austria
- QF54** ANATOMICAL FEASIBILITY OF EXTRADURAL TRANSFERRING S2 AND S3 VENTRAL ROOTS TO S1 VENTRAL ROOT FOR RESTORING NEUROGENIC BLADDER IN SPINAL CORD INJURY
Kaixiang Yang, Xiaojian Cao
Department of Orthopaedics, Nanjing, China

- QF55** MRI CHANGE AFTER PERCUTANEOUS ENDOSCOPIC LUMBAR FORAMINOPLASTY FOR LUMBAR FORAMINAL STENOSIS
Jongchul Chung, Changbong Kong, Woosung Sun, Byongwook Hwang, Hyungdong Kim
Department of Neurosurgery, Busan, Korea
- QF56** ASSESSMENT OF PSOAS MUSCLE DAMAGE AND CLINICAL OUTCOMES IN THE EARLY POSTOPERATIVE PERIOD AFTER LATERAL LUMBAR INTERBODY FUSION
Shimei Tanida, Shunsuke Fujibayashi, Bungo Otsuki, Shuichi Matsuda
Department of Orthopaedic Surgery, Graduate School of Medicine, Kyoto University
- QF57** A NOVEL SURGICAL APPROACH FOR TRANSPLANTATION OF OLFACTORY ENSHEATHING CELLS FOLLOWING A TRANSECTION TYPE SPINAL CORD INJURY IN MICE
Ronak Reshamwala, Todd Shelper, Megha Shah, James St John
Griffith University, Queensland, Australia
- QF58** MINIMALLY INVASIVE LATERAL LUMBAR INTERBODY FUSION AND POSTERIOR INSTRUMENTATION FOR CLINICAL ADJACENT SEGMENT PATHOLOGY: A RETROSPECTIVE MATCHED COHORT STUDY WITH ONLY POSTERIOR INSTRUMENTATION
Hyung-Ki Min, Kee-Yong Ha, Young-Hoon Kim, Sang-Il Kim, Hyung-Youl Park, In-Soo Oh, Jun-Yeong Seo, Dong-Gune Chang
Department of Orthopedic Surgery, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Korea
- QF59** MISS TLIF VS XLIF IN THE L4L5 LEVEL: COMPLICATIONS AND OUTCOMES
Juan Del Castillo-Calcaño, Khai Lam
Department of Neurosurgery, Pemex, Mexico City, Mexico; London Bridge Hospital, London, UK
- QF60** MIDDLE TERM RESULTS OF MINIMALLY INVASIVE UNILATERAL PEDICLE SCREW FIXATION COMBINED WITH TRANSFORAMINAL INTERBODY FUSION FOR THE TREATMENT OF ONE LEVEL DEGENERATIVE DISC DISEASE IN THE LUMBAR SPINE
Giuseppe Morassi, Lykourgos Kollintzas, Sherief Elsayed, Iosif Tarazi
Brighton and Sussex University Hospitals

14:00

Trauma, Diagnostics and Imaging, Epidemiology

- QF61** CLINICAL ANALYSIS OF RADIOLOGIC MEASUREMENT FOR BASILAR INVAGINATION: IS IT POSSIBLE TO PREDICT POSTOPERATIVE OUTCOME BY RADIOLOGIC MEASUREMENT?
Jong-Hyeok Park, Jae Taek Hong, Il Sup Kim
Department of Neurosurgery, Suwon, South Korea
- QF62** CLINICAL PREDICTORS AND OPTIMAL MANAGEMENT FOR PATIENTS WITH CERVICAL SPINAL CORD INJURY WITHOUT MAJOR BONE INJURY
Hideaki Nakajima, Ai Takahashi, Ippei Kitade, Shuji Watanabe, Kazuya Honjoh, Akihiko Matsumine
Department of Orthopaedics and Rehabilitation Medicine, Faculty of Medical Sciences University of Fukui, Fukui, Japan
- QF63** PREDICTIVE VALUES OF MAGNETIC RESONANCE IMAGING FEATURES FOR TRACHEOSTOMY IN TRAUMATIC CERVICAL SPINAL CORD INJURY
Tae Seok Jeong, Sang Gu Lee, Woo Kyung Kim, Yong Ahn, Seong Son
Dept of Neurosurgery, Incheon, South Korea
- QF64** NEUROMONITORING SIGNAL CHANGES IN CERVICAL SPINE SURGERY: WHEN IS IT SIGNIFICANT?
Joshua Decruz, Ho Yin Wong, Jacob Oh, Yoong Leong
Department of Orthopaedic Surgery, Khoo Teck Puat Hospital, Singapore
- QF65** RECRUITMENT OF OTHER REGIONS IN BRAIN FUNCTIONAL CONNECTIVITY NETWORK AFTER LAMINOPLASTY IN PATIENTS WITH CERVICAL MYELOPATHY
Shota Takenaka, Takashi Kaito, Takahiro Makino, Yusuke Sakai, Junichi Kushioka, Hisashi Tanaka, Yoshiyuki Watanabe, Shigeyuki Kan, Masahiko Shibata
Dept of Orthopaedic Surgery, Osaka University, Osaka, Japan
- QF66** CERVICAL SPINAL STENOSIS WITH COEXISTING ROTATOR CUFF TEAR: A NATIONWIDE REVIEW OF RECORDS FROM 2005 TO 2014
Michael Faloon, Conor Dunn, Jennifer Kurowicki, Kimona Issa, Anthony Festa, Anthony Scillia, Vincent McInerney, Arash Emami
Seton Hall University, School of Medicine, Dept of Orthopaedic Surgery, Paterson, NJ, USA

- QF67** VERTEBRAL BODY LAVAGE REDUCES HEMODYNAMIC RESPONSE TO VERTEBRAL BODY AUGMENTATION
Christoph Albers, Philipp Schott, Sufian Ahmad, Lorin Benneker, Nadine Nieuwkamp, Sven Hoppe
Dept. of Orthopaedic Surgery; Spine Unit, University Hospital Bern, Switzerland
- QF68** MIDTERM CLINICAL RESULTS OF TEMPORARY SHORT-SEGMENT FIXATION WITHOUT AUGMENTATION FOR THORACOLUMBAR BURST FRACTURES
Tomoya Yamashita, Hiroyuki Aono, presented by Masayuki Furuya
Dept of Orthopaedic Surgery, Osaka, Japan
- QF69** LONG-TERM FOLLOW-UP RESULTS IN PATIENTS WITH THORACOLUMBAR UNSTABLE BURST FRACTURE TREATED WITH TEMPORARY POSTERIOR INSTRUMENTATION WITHOUT FUSION AND IMPLANT REMOVAL SURGERY - FOLLOW-UP RESULTS FOR AT LEAST TEN YEARS -
Sangbong Ko
Dept of Orthopaedic Surgery, Daegu, Korea
- QF70** THE RADIOLOGICAL EVALUATION DOES NOT REFLECT THE CLINICAL OUTCOME AFTER SURGERY IN UNSTABLE THORACOLUMBAR AND LUMBAR TYPE A FRACTURES WITHOUT NEUROLOGICAL SYMPTOMS. A COMPARATIVE STUDY OF TWO COHORTS TREATED BY OPEN OR PERCUTANEOUS SURGERY
Alejandro Lorente-Gómez, Rafael Lorente-Moreno, Pablo Palacios-Cabezas, Bárbara Rosa, Carlos Barrios, Alexander Vaccaro
Hospital Ramón y Cajal, Madrid, Spain; Hospital Infanta Cristina, Badajoz, Spain; University Hospital Madrid Norte Sabchinarro, Madrid, Spain; Valencia Catholic University, Valencia, Spain
- QF71** BONE SCINTIGRAPHY WITH SPECT CT IN PAEDIATRIC PATIENTS WITH BACK PAIN: THE EXPERIENCE OF A TERTIARY PAEDIATRIC REFERRAL CENTRE
Kelechi Eseonu, Uche Oduoza, Lorenzo Biassoni, Ramesh Nadarajah
Spinal Orthopaedic Department, Great Ormond Street Hospital, London
- QF72** RADIOLOGICAL AND CLINICAL EVALUATION OF THE USE OF LOW AND HIGH DENSITY SCREW SYSTEMS IN SCHEUERMANN KYPHOSIS
Umit Ozgur Guler, Metin Ozalay, Alpaslan Senkoylu, Ismail Daldal, Murat Bezer, Akif Albayrak, Mustafa Celiktaş, Mahir Gulsen, Akin Ugras, Serkan Erkan, Esat Kiter, Nusret Ok, Yetkin Soyuncu, Omer Akcalı, Ali Asma, Anil M.Ozturk, Burak Akesen
Dept of Orthopedics& Traumatology, Adana, Turkey
- QF73** 3D VALIDATION OF THE NEW SAGITTAL CLASSIFICATION FOR AIS
Mareille Post, Stephane Verdun, Pierre Roussouly, Kariman Abelin-Genevois
Dept of Spine surgery, Centre Medico Chirurgical des Massues Croix Rouge Francaise, Lyon, France Dept of Medical Research, Institut Catholique de Lille, France
- QF74** THE INFLUENCE OF OBESITY ON LOW BACK PAIN IN ELDERLY INDIVIDUALS CONSIDERATIONS BASED ON MEDICAL EXAMINATION OF LOCAL RESIDENTS: THE GAINA STUDY
Shinji Tanishima, Hiroshi Hagino, Hiromi Matsumoto, Hideki Nagashima
Dept of Orthopedic Surgery, Tottori-University, Japan
- QF75** TIME FOR ONE MORE QUESTION? A SIMPLE "YELLOW FLAG" TOOL TO ASSESS PSYCHOLOGICAL FACTORS IN PATIENTS UNDERGOING SPINE SURGERY
Anne F Mannion, Francine Mariaux, Tamas F Fekete, Daniel Haschtmann, Markus Loibl, Hans-Jürgen Burgstaller, Frank Kleinstück, François Porchet, Dezső Jeszszky, Achim Elfering
Schulthess Klinik, Zürich, Switzerland

14:00

Degenerative Cervical Spine, Tumor, Patient Safety

- QF76** DOES ADDITIONAL UNCINATE RESECTION INCREASE PSEUDARTHROSIS FOLLOWING ANTERIOR CERVICAL DISCECTOMY AND FUSION?
Jong-Min Baik, Deuk Soo Jun
Dept of Spine surgery, Seoul, Korea
- QF77** THE DISCREPANCY BETWEEN CLINICAL MEASURES AND SELF-REPORTED RATINGS OF HEALTH STATUS: AN INTRODUCTION TO RESPONSE SHIFT
Rachel Howard, Lindsay Tetreault, Mary Zhu, Michael Fehlings, Jefferson Wilson
Graduate Entry Medicine, University College Cork, Cork, Ireland

- QF78** RELATED FACTORS OF NECK DISABILITY INDEX (NDI) AMONG ELDERLY PEOPLE IN SUBURBAN AREA: SHIRANIWA COHORT STUDY
Yusuke Hori, Masatoshi Hoshino, Shinji Takahashi, Shoichiro Ohyama, Tadao Tsujio, Akio Kobayashi, Hiroaki Nakamura
Dept of Orthopaedic Surgery, Osaka City University, Osaka, Japan
- QF79** FACTORS AFFECTING OUTCOMES OF CERVICAL DOUBLE-DOOR LAMINOPLASY BY MIDSAGITTAL SPLITTING METHOD
Toshikatsu Mamada, Norihiko Nakata, Go Hayasaka
Dept. of Spine Surg., JCHO Tokyo Yamate Medical Center
- QF80** INFLUENCE OF THE PARAMETERS OF THE LOCAL SAGITTAL BALANCE OF THE CERVICAL SPINE ON THE QUALITY OF LIFE OF PATIENTS OPERATED ON FOR KYPHOTIC DEFORMITIES OF THE CERVICAL SPINE
Vladimir Klimov, Vladislav Kelmakov, Aleksey Evsyukov, Evgeniy Loparev, Murodzhon Kosimshoev, Evgenia Amelina
The "Federal Center of Neurosurgery"
- QF81** SURGICAL TREATMENT OF SEVERE RIGID CERVICAL KYPHOSIS BY POSTERIOR LATERAL OSTEOTOMY
Baoge Liu, Wei Cui
Department of Orthopaedic Surgery, Beijing Tian Tan Hospital Capital medical University, China
- QF82** CAN WE DEFINE CLINICALLY RELEVANT DJK IN CERVICAL DEFORMITY SURGERY?
Themistocles Protopsaltis, Nicholas Stekas, Renaud Lafage, Justin Smith, Alex Soroceanu, Daniel Sciubba, Kojo Hamilton, Robert Eastlack, Greg Mundis, Khaled Kebaish, Eric Klineberg, Munish Gupta, Virginie Lafage, Robert Hart, Frank Schwab, Doug Burton, Shay Bess, Christopher Shaffrey, Christopher Ames, ISSG
NYU Langone Medical Center, NYU Langone Orthopedic Hospital, New York, USA
- QF83** DOES ADDITIONAL BONE GRAFTING OF ATLANTOAXIAL JOINT INCREASE THE BONE FUSION RATE OF ILIAC CREST AUTOGRAFT IN POSTERIOR OCCIPITOCERVICAL FUSION? A RETROSPECTIVE, CONTROLLED STUDY WITH A 2-YEAR FOLLOW-UP
Jun-Song Yang, Tuan-Jiang Liu, Ding-Jun Hao
Honghui Hospital, Xi'an Jiaotong University
- QF84** METASTATIC SPINE DISEASE AND CANCER WITH UNKNOWN PRIMARY - A SURVIVAL ANALYSIS
Christian Carrwik, Claes Olerud, Yohan Robinson
Department of Surgical Sciences / Section of Orthopaedics, Uppsala University, Sweden
- QF85** RECONSTRUCTION OF CERVICAL CORPECTOMY DEFECT WITH EXPANDABLE IMPLANTS IN METASTASIC SPINE DISEASE. DO WE NEED POSTERIOR FIXATION ?
Yasser El Mansy, Heinrich Böhm
RWTH University hospital of Aachen, Zentralklinik Bad Berka, Germany
- QF86** PERIOPERATIVE COMPLICATIONS AND PROGNOSIS OF TOTAL EN BLOC SPONDYLECTOMY FOR SPINAL METASTASES IN ELDERLY PATIENTS
Noritaka Yonezawa, Hideki Murakami, Satoru Demura, Satoshi Kato, Katsuhito Yoshioka, Noriaki Yokogawa, Takaki Shimizu, Norihiro Oku, Ryo Kitagawa, Hiroyuki Tsuchiya
Dept of Orthopaedic Surgery, Kanazawa University, Kanazawa, Japan
- QF87** TOTAL EN BLOC SPONDYLECTOMY FOR PRIMARY TUMORS OF THE LUMBAR SPINE
Takaki Shimizu, Hideki Murakami, Satoru Demura, Satoshi Kato, Noriaki Yokogawa, Norihiro Oku, Ryo Kitagawa, Hiroyuki Tsuchiya
Dept of Orthopaedic Surgery, Kanazawa, Japan
- QF88** ADVERSE EVENTS PROFILE IN EN BLOC RESECTION AND SURGERY FOR PRIMARY BONE TUMOR
Shreya Srinivas, Raphael Charest -Morin, Charles Fisher, Nicolas Dea
Combined Neursurgical and Orthopedic Program, Vancouver Spine Surgery, Vancouver BC, Canada
- QF89** EFFECT OF TRANEXAMIC ACID FOR PERIOPERATIVE BLOOD LOSS IN DECOMPRESSION SPINE SURGERIES: A DOUBLE BLIND PROSPECTIVE RANDOMIZED CONTROLLED STUDY
Atsuki Sano, Tsuyoshi Sato
Dept of Orthopaedic surgery, Shibata, Japan
- QF90** SURGICAL TRAINING IN SPINE SURGERY: SAFETY AND PATIENT-RATED OUTCOME
Guy Waisbrod, Anne Mannion, Tamas Fekete, Deszö Jeszenszky, Frank Kleinstück, Daniel Haschtmann
Department of Spine Surgery, Schulthess Klinik, Zürich, Switzerland

15:50 – 17:00 **Complications, Infection, Epidemiology**

Main Plenary

- 70** THE SHOULDER BALANCE REBUILDING IN SEVERE THORACIC SCOLIOSIS WITH A LOWER SHOULDER ON THE CONCAVE SIDE: EXPERIENCE FROM A SINGLE INSTITUTION INVOLVING 84 PVCR PATIENTS OVER 13 YEARS
Tao Li , Yingsong Wang , Jingming Xie , Ying Zhang , Zhi Zhao, Zhiyue Shi , Ni Bi
Department of Orthopedics, The 2nd Affiliated Hospital of Kunming Medical University, Yunnan Province, P.R.China
- 71** RECONSTRUCTION OF THE BASEMENT - RATHER THAN ADDING A STOREY IS MORE EFFECTIVE IN PREVENTING RE-PJK IN ADULT SPINAL DEFORMITY PATIENTS
Caglar Yilgor, Suna Iahut, Kadir Abul, Yasemin Yavuz, Firat Gulagaci, Ibrahim Obeid, Frank CK Kleinstuck, Francisco Javier Sanchez Perez-Gruoso, Emre Acaroglu, Ferran Pellise, Ahmet Alanay, ESSG, European Spine Study Group
¹Department of Orthopedics and Traumatology, Acibadem Mehmet Ali Aydinlar University, Istanbul, Turkey; ²Comprehensive Spine Center, Acibadem Maslak Hospital, Istanbul, Turkey; ³Department of Biostatistics, Ankara University, Ankara, Turkey; ⁴Spine Surgery Unit, Bordeaux University Hospital, Bordeaux, France; ⁵Spine Surgery Unit, Hospital Universitari Vall d'Hebron, Barcelona, Spain; ⁶Spine Center Division, Department of Orthopedics and Neurosurgery, Schulthess Klinik, Zurich, Switzerland; ⁷Spine Surgery Unit, Hospital Universitario La Paz, Madrid, Spain, ⁸Ankara ARTES Spine Center, Ankara, Turkey, ⁹Spine Center Division, Department of Research and Development, Schulthess Klinik, Zurich, Switzerland; ¹⁰Vall Hebron Institute of Research (VHIR) Barcelona-Spain
- 72** CLOSED DRAINAGE VERSUS NON-DRAINAGE FOR SINGLE-LEVEL LUMBAR DISCECTOMY: A PROSPECTIVE RANDOMIZED CONTROLLED STUDY
Dingjun Hao, Biao Wang
Department of Spine Surgery, Honghui Hospital, Xi'an Jiaotong University College of Medicine, Xi'an, China
- 73** COMPARING LUMBAR SPINAL FUSION PERIOPERATIVE MORBIDITY AND MORTALITY BY APPROACH UTILIZING THE NATIONAL INPATIENT SAMPLE (NIS): 2005-2013
Michael Faloan, Conor Dunn, Kimona Issa, Nikhil Sahai, Kumar Sinha, Ki Soo Hwang, Arash Emami
Seton Hall University, School of Medicine, Dept of Orthopaedic Surgery, Paterson, NJ, USA
- 74** LOW-GRADE INFECTION IN SPINAL INSTRUMENTATION: A PROSPECTIVE COMPARATIVE STUDY
Ehab Shiban, Mohammed Issa, Insa Janssen, Bernhard Meyer
Department of neurosurgery, technical university of munich, Germany
- 75** DEEP SURGICAL INFECTION FOLLOWING INSTRUMENTED THORACOLUMBAR SURGERY. THE EXPERIENCE OF A QUARTER OF A CENTURY.
Borja De La Hera Cremades, Felisa Sánchez-Mariscal Díaz, Alejandro Gómez-Rice, Iria Carla Vázquez Vecilla, Lorenzo Zúñiga Gómez, Rafael Rubio Quevedo, Esther Ruano Soriano
Orthopaedic surgery, Spinal Unit, Getafe University Hospital, Madrid, Spain

76 RESULTS OF PREOPERATIVE NASAL BACTERIAL CULTURE IN PATIENTS WHO UNDERWENT SPINAL INSTRUMENTATION SURGERY

*Hirohito Takeuchi, Itaru Oda, Shigeki Oshima, Masaru Suzuki, Masanori Fujiya
Hokkaido Orthopedic Memorial Hospital, Sapporo, Japan*

77 IMPACT OF ELECTROCAUTERY ON FATIGUE LIFE OF SPINAL FUSION CONSTRUCTS - AN IN VITRO BIOMECHANICAL INVESTIGATION

Michael Akbar, Haidara Al Mansour, Wojciech Pepke, Robert Sonntag, Jan Philippe Kretzer

*Spine Center, Department of Orthopedic Surgery and Spinal Cord Injury,
Univeristy of Heidelberg, Heidelberg, Germany*

78 PATIENTS HAVE GREATER EXPECTATIONS THAN SURGEONS HAVE FOR IMPROVEMENT IN PSYCHOLOGICAL WELL-BEING FROM LUMBAR SURGERY

Carol A Mancuso, Roland Duculan, Frank P Cammisa, Andrew A Sama, Alexander P Hughes, Darren R Lebl, Federico P Girardi

Dept of Orthopedics, Hospital for Special Surgery, New York, NY, USA

17:00

ADJOURN – END