08:30–10:00  DEGENERATIVE SPINE  
Room: Plenary Hall (A6/7)  
Chairs: Marco Teli, Liverpool, UK; Finn B. Christensen, Aarhus, Denmark

21 THE ROLE OF SLEEP QUALITY ON SPONTANEOUS REGRESSION OF INTERVERTEBRAL DISC HERNIATION  
Alexander Tkachev, Alina Smirnova  
VolGMU, DTS IIBS, Neurology, Volgorad, Russia

22 ROLE OF BACTERIA IN DISC DEGENERATION  
Máximo-Alberto Diez-Ulloa, Adrian Gallego-Goyanes, Pablo Baltar  
Orthopaedics, University Hospitalary Complex of Santiago de Compostela, Spain

23 TUBULAR DISCECTOMY VS CONVENTIONAL MICRODISCECTOMY FOR THE TREATMENT OF LUMBAR DISK HERNIATION - LONG-TERM RESULTS OF RANDOMIZED CONTROLLED TRIAL  
Gijbert Overdevest, Wilco Peul, Ronald Brand, Bart Koes, Ronald Bartels, Wee Fu Tan, Mark Arts  
Department of Neurosurgery, The Hague Medical Center, The Hague, The Netherlands; Department of Neurosurgery, Leiden University Medical Center, Leiden, The Netherlands

24 CLASSIFICATION CRITERIA FOR NEUROGENIC CLAUDICATION CAUSED BY LUMBAR SPINAL STENOSIS  
Stéphane Genevay, Delphine Courvoisier, Kika Konstantinou, Francisco Kovacs, Marc Marty, James Rainville, Michael Norberg, Jean-François Kaux, Thomas Cho, Jeffrey Katz, Steve Atlas  
Division of Rheumatology, Universtiy Hospital of Geneva, Switzerland

25 IS THERE AN ASSOCIATION BETWEEN RADIOLOGICAL SEVERITY OF LUMBAR SPINAL STENOSIS AND DISABILITY, PAIN, OR SURGICAL OUTCOME? A MULTICENTER OBSERVATIONAL STUDY  
Clemens Weber, Charalampos Giannadakis, Vidar Rao, Asgeir S. Jakola, Ulf S. Nerland, Øystein P. Nygård, Tore K. Solberg, Sasha Gulati, Ole Solheim  
Department of Neurosurgery, Stavanger University Hospital, Stavanger, Norway

26 MORPHOLOGICAL GRADE AND DURAL SAC CROSS-SECTIONAL AREA BOTH SHOW A SIGNIFICANT ASSOCIATION WITH PATIENT-RATED OUTCOME OF SURGERY FOR LUMBAR CENTRAL SPINAL STENOSIS  
Anne F Mannion, Daniela Pacifico, David O’Riordan, Mirjam von Büren, Tamas F Fekete, François Porchet, Constantin Schizas  
Spine Center, Schulteys Klinik Zürich, Switzerland

27 DIFFUSE IDIOPATHIC SKELETAL HYPEROSTOSIS (DISH) AFFECTS THE CLINICAL RESULTS OF DECOMPRESSION SURGERY IN LUMBAR SPINE  
Bungo Otsuki, Shunsuke Fujibayashi, Shimei Tanada, Kazutaka Masamoto, Shuichi Matsuda  
Graduate school of medicine, Kyoto university, Kyoto, Japan

28 ACCUMULATED QUALITY OF LIFE INCREASE OF LUMBAR SPINE SURGERY  
Emma Jonsson, Gylfi Olafsson, Peter Fritzell, Olle Hägg, Fredrik Borgström  

29 DETERMINANTS OF PATIENT SATISFACTION AFTER SURGERY FOR CENTRAL SPINAL STENOSIS WITHOUT CONCOMITANT SPONDYLOLISTHESIS - A REGISTER STUDY OF 5,100 PATIENTS  
Freyr Gauti Sigmundsson, Bo Jönsson, Björn Strömqvist  
Department of Orthopedic Surgery, The Spine Section  
Skane University Hospital, Lund University, Malmö, Sweden
30 THE LAW OF DIMINISHING RETURNS IN SURGERY FOR DEGENERATIVE SPINAL DISORDERS: QUANTIFICATION OF THE EFFECT OF PREVIOUS SURGERY ON PATIENT-RATED OUTCOMES
Pascal Zehnder, Emin Aghayev, Tamas F Fekete, Daniel Haschtmann, Tim Pigott, Anne F Mannion
Schulthess Klinik, Zürich, Switzerland; Institute for Social and Preventive Medicine, University of Bern, Switzerland; Walton Centre for Neurology and Neurosurgery, Liverpool, UK

31 PREVALENCE AND IMPACT ON OUTCOME OF REOPERATION FOLLOWING MINIMALLY INVASIVE DECOMPRESSION ALONE FOR DEGENERATIVE LUMBAR DISEASE
Minori Kato, Takashi Namikawa, Akira Matsumura, Hiroaki Nakamura
Department of Orthopaedic Surgery, Osaka City General Hospital, Osaka, Japan

10:00–10:30 BREAK

10:30–12:00 PRESIDENTIAL ADDRESS, MEDAL AND AWARDS LECTURES
Room: Plenary Hall (A6/7)
Chair: Margareta Nordin, Romorantin, France; Hans Joachim Wilke, Ulm, Germany

10:30 WINNER OF THE 2016 EUROSPINE FULL PAPER AWARD
WIRE CERCLAGE CAN RESTORE THE STABILITY OF THE THORACIC SPINE AFTER MEDIAN STERNOTOMY: AN IN VITRO STUDY WITH ENTIRE RIB CAGE SPECIMENS
Christian Liebsch, Nicolas Graf, Hans-Joachim Wilke
Institute of Orthopaedic Research and Biomechanics, Centre of Musculoskeletal Research (zmfu), Ulm University, Ulm, Germany

10:38 WINNER OF 2015/2016 GRAMMER/ EUROPEAN SPINE JOURNAL AWARD
CHANGES IN PERFUSION AND DIFFUSION IN THE ENDPATE REGIONS OF DEGENERATING INTERVERTEBRAL DISCS: A DCE-MRI STUDY
Volkan Emre Arpinar, Scott D. Rand, Andrew P. Klein, Dennis J. Maiman, L. Tugan Muftuler

10:46 MAX AEBI AWARD FOR CLINICAL SCIENCES
MAVERICK TOTAL DISC REPLACEMENT IN A REAL-WORLD PATIENT POPULATION: A PROSPECTIVE, MULTICENTRE, OBSERVATIONAL STUDY
Richard Assaker1, Karsten Ritter-Lang2, Dominique Vardon3, Stéphane Litrico4, Stéphane Fuentes5, Michael Putzier6, Jörg Franke7, Peter Jarzem8, Pierre Guigui9, Gérard Nakach10, Jean-Charles Le Huec11
1 Service de Neurochirurgie, Centre Hospitalier Re´gional, Universitaire, Ho´pital Roger Salengro, Lille, France; 2 Orthopaedium-potsdam, Potsdam, Germany; 3 Clinique du Cours Dillon, Toulouse, France; 4 Service de Neurochirurgie, Hôpital Pasteur, Centre Hospitalier Universitaire de Nice, Nice, France; Service de Neurochirurgie, Hôpital de la Timone, Marseille, France; 6 Charite´ Berlin, Klinik für Orthopädie, Berlin, Germany; 7 Department of Spinal Surgery, Klinikum Dortmund, Dortmund, Germany; 8 Montreal General Hospital, Quebec, Canada; 9 Service de Chirurgie Orthopédique, Clichy, France; 10 Service de Chirurgie Orthopédique, Centre Hospitalier de Meulan, Meulan, France; 11 Ho´pital Pellegrin, Centre Hospitalier Universitaire de Bordeaux, Bordeaux, France

10:54 EUROSPINE PRESIDENTIAL ADDRESS
THE SURGEON'S TIME CAPSULE
Michael Ogon, Vienna, Austria. EUROSPINE President 2016

11:24 SOCIETY UPDATE (RESEARCH, MEMBERSHIP)
EUROSPINE 2016
Scientific Programme
Oral presentations

11:30
EUROSPINE MEDAL LECTURE 2016
THE NEW WORLD ORDER
Theo Sommer, Former Editor-in-Chief, „Die Zeit”, Germany

12:00–14:00 EUROSPINE LUNCH SYMPOSIA, Thursday

12:00 EUROSINE LUNCH SYMPOSUM 3:
INTERBODY FUSION – A WIDE RANGE OF SURGICAL OPTIONS AND
MATERIALS
Room: A1
Chair: Klaus John Schnake, Fürth, Germany

INTRODUCTION: HOW DO WE ACHIEVE THE BEST LUMBAR INTERBODY FUSION?
Klaus John Schnake, Fürth, Germany

THE APPROACH – ANTERIOR, POSTERIOR, OR LATERAL?
- Anterior (ALIF) is superior
  Zdenek Klezl, Derby, UK
- Posterior (PLIF, TLIF) is superior
  Manuel Tavares, Lisbon, Portugal
- Oblique (OLIF) is superior
  Christoph Mehren, Munich, Germany
- Extreme lateral (XLIF) is superior
  Pedro Berjano, Milano, Italy

DISCUSSION

THE TECHNIQUE – CAGE MATERIALS AND DESIGNS
- Why I use titanium
  Stavros Stavridis, Thessaloniki, Greece
- Why I use PEEK
  Peter Vajkoczy, Berlin, Germany
- Why I use coated cages
  Lorin Benneker, Bern, Switzerland
- Why I use PMMA
  Áron Lazary, Budapest, Hungary

DISCUSSION

THE BIOLOGY – BONE GRAFT VS. SUBSTITUTES FOR SPINAL FUSION
Overview
Hans-Jörg Meisel, Halle, Germany

DISCUSSION
### 12:00
**EUROSPINE LUNCH SYMPOSIUM 4: HOW TO IMPROVE RESULTS ON DEFORMITIES. IS THE KEY IN THE PREOPERATIVE MANAGEMENT**

**Room:** A2  
**Chair:** Javier Pizones, Madrid, Spain

- PREOPERATIVE PATIENT CARE  
  Susana Núñez, Koeln, Germany

- PREOPERATIVE OSTEOTOMY PLANIFICATION  
  Çağlar Yilgör, Istanbul, Turkey

- SURGICAL TIPS AND TRICKS TO MINIMISE COMPLICATIONS  
  Ibrahim Obeid, Bordeaux, France

- PANEL DISCUSSION QUESTIONS AND ANSWERS

### 14:00–15:20
**GROWING AND DEGENERATIVE SPINE**

**Room:** Plenary Hall (A6/7)  
**Chairs:** Everard Munting, Ottignies, Belgium; Martin Gehrchen, Copenhagen, Denmark

- **32** EMERGING ROLE OF CENTROSOMAL PROTEIN POC5, THE CENTRIOLE AND PRIMARY CILIA IN IDIOPATHIC SCOLIOSIS
  Florina Moldovan, Amani Hassan, Mathieu Lévesque, Soraya Barchi, Srinath Molgidperée, Shunmoogum A Patten, Stefan Parent  
  CHU Sainte Justine, Université de Montréal Orthopedics, Montreal, Canada

- **33** COMPARISON AND RELIABILITY OF TWO RADIATION-FREE MEASUREMENT TOOLS FOR SPINAL SAGITTAL ANGLES EVALUATION IN PATIENTS WITH ADOLESCENT IDIOPATHIC SCOLIOSIS  
  Anne Tabard-Fougère, Alice Bonnefoy-Mazure, Stéphane Armand, Romain Dayer  
  Laboratory of kinesiologiy, University Hospitals and University of Geneva, Geneva, Switzerland

- **34** FLEXIBILITY PREDICTS CURVE PROGRESSION IN PROVIDENCE NIGHTTIME BRACING OF PATIENTS WITH ADOLESCENT IDIOPATHIC SCOLIOSIS
  Sørøen Ørht-Nissen, Dennis Winge Hallager, Martin Gehrchen  
  Orthopedic Surgery, Spine Unit, Rigshospitalet, Copenhagen, Denmark

- **35** SURGICAL OUTCOMES OF PEDIATRIC POSTERIOR VERTEBRAL COLUMN RESECTION IN PATIENTS WITH CONGENITAL SCOLIOSIS: GREATER THAN 10-YEAR FOLLOW-UP
  Dong-Gune Chang, Jae Hyuk Yang, Jung-Hee Lee, Seung-Woo Suh, Jin-Hyok Kim, Se-Il Suk.  
  Presenter: Sung Joon Shin  
  Inje University Sanggye Paik Hospital, Korea University Guro Hospital, Kyung Hee University Hospital, Seoul, Korea (ROK / South Korea)

- **36** LONG-TERM RESULTS OF ANTERIOR SELECTIVE FUSION IN THORACOLUMBAR IDIOPATHIC ADOLESCENT SCOLIOSIS AFTER 17 YEARS FOLLOW-UP
  Renato Delfino, Javier Pizones, Cristina Ruiz-Juretschke, Felisa Sánchez-Mariscal, Lorenzo Zuñiga, Enrique Izquierdo  
  Hospital Universitario de Getafe, Spine Unit. Orthopaedic Surgery Department, Madrid, Spain

- **37** PREDICTING MAJOR COMPLICATIONS AFTER SURGICAL TREATMENT OF ADOLESCENT IDIOPATHIC SCOLIOSIS
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Zsolt Szoverfi, Aron Lazary, Bela Fazekas, Peter Pal Varga
National Center for Spinal Disorders, Budapest, Hungary

38 OCCULT INFECTION IN INSTRUMENTED SPINAL SURGERY
Tucker Callanan, Darren Lebl, Samuel Miller, Andrew Sama, Frank Cammissa, Federico Girardi, Brendon Walker, Celeste Abjornson
Hospital for Special Surgery, New York, USA

39 SURGICAL SITE INFECTION AFTER A ROUTINE LUMBAR SURGERY INFLUENCES THE LONG-TERM PATIENT REPORTED TREATMENT OUTCOME
Aron Lazary, Istvan Klemencsics, Adam Biczó, Peter Pal Varga
National Center for Spinal Disorders, Budapest, Hungary

40 EVALUATION OF THE OSTEINDUCTIVITY BETWEEN ACTIVIN A / BMP-2 CHIMERA (AB204) AND RHBM-2 USING IN VITRO AND LARGE ANIMAL MODEL
Jae Hyup Lee
Seoul National University, College of Medicine, Seoul, Korea (ROK / South Korea)

41 EFFECTS OF DISC DEGENERATION AND VERTEBRAL FUSION ON PRO-INFLAMMATORY MEDIATORS IN A RABBIT INTERVERTEBRAL DISC DEGENERATION MODEL
Davut Dumanlidag, Can Kosay, Guigun Oktay, Didem Keles
Dokuz eyül university, Izmir, Turkey

15:20–15:50 BREAK

15:50–17:30 CERVICAL SPINE
Room: Plenary Hall (A6/7)
Chairs: Emre Acaroglu, Ankara, Turkey; Joerg Franke, Magdeburg, Germany

42 REEMERGENCE OF SYMPTOMS AFTER SUCCESSFUL TREATMENT WITH CERVICAL DISC ARTHROPLASTY OR ANTERIOR CERVICAL DISCECTOMY AND FUSION BETWEEN 2 TO 5 YEARS FOLLOW UP.
Jacques Beaurain, Thierry Dufour, Kris Radcliff, Joël Delecroix
(1) Neurosurgery Department, University Hospital, Dijon, France; (2) Neurosurgery Department, State Hospital CHR d’Orléans, Orléans, France; (3) Department of Orthopedic Surgery, Thomas Jefferson University, Rothman Institute, Egg Harbor, NJ, USA; (4) Orthopedic and Traumatology Surgery department, Nantes University Hospital, Nantes, France

43 LONG-TERM CLINICAL AND RADIOGRAPHIC OUTCOMES OF AN ARTIFICIAL CERVICAL DISC REPLACEMENT AT TWO LEVELS: RESULTS FROM A LEVEL 1 PROSPECTIVE RANDOMIZED CONTROLLED CLINICAL TRIAL
Todd Lanman, Scott Hodges, Matt Gornet, J. Kenneth Burkus, Jeffrey McConnell, Randall Dryer
Cedars Sinai Medical Center, Institute for Spinal Disorders, Beverly Hills, USA

44 THE INFLUENCE OF HIGH LEVELS OF NECK PAIN ON THE OUTCOME OF CERVICAL ARTHROPLASTY
Sina Tok, Anne F Mannion, Urs Mutter, Hans-Juergen Becker, Francois Porchet
Spine Centre Schulthess Clinic Zurich, Switzerland

45 LONG-TERM PATIENT-RATED OUTCOME AFTER SURGERY FOR CERVICAL MYELOPATHY: AN ANALYSIS OF PROSPECTIVELY COLLECTED DATA FROM A LARGE, CONSECUTIVE GROUP OF PATIENTS UP TO 5 YEARS POSTOPERATIVELY
Francois Porchet, Sina Tok, Hans-Juergen Becker, Dezsoe J Jeszenszky, Tamas Fekete, Frank S Kleinstueck, Anne F Mannion
Spine Centre Schulthess Clinic Zurich, Switzerland

46 THE IMPACT OF CERVICAL SAGITTAL IMBALANCE ON LAMINOPLASTY INDICATED TO PATIENTS WITH CERVICAL MYELOPATHY
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**47** CERVICAL KYPHOTIC DEFORMITY MANAGED WITH UPPER THORACIC PEDICLE SUBTRACTION OSTEOTOMY: CLINICAL PARAMETERS AND OUTCOME ANALYSIS OF 13 CASES
Minori Kato, Takashi Namikawa, Akira Matsumura, Hiroaki Nakamura
Department of Orthopaedic Surgery, Osaka City General Hospital, Osaka, Japan

**Sergey Neckrysh, Constantin Schizas, Pavel Krotenkov**
Department of Neurosurgery, University of Illinois at Chicago, USA

**48** THE CLINICAL USEFULNESS OF PREOPERATIVE DYNAMIC MRI TO SELECT DECOMPRESSION LEVELS IN PATIENTS WITH CERVICAL MYELOPATHY CAUSED BY OSSIFICATION OF THE POSTERIOR LONGITUDINAL LIGAMENT
Chan Yoon, Gang-un Kim, Ho Sung Han, Ho-Joong Kim, Bong-Soon Chang, Choon-Ki Lee, Jin S. Yeom
Seoul National University College of Medicine and Seoul National University Bundang Hospital, Sungnam, Korea (ROK/ South Korea)

**49** PREVALENCE AND COMPLICATIONS OF POST-OPERATIVE TRANSFUSION FOR CERVICAL FUSION PROCEDURES IN SPINE SURGERY; AN ANALYSIS OF 11,588 PATIENTS FROM THE ACS-NSQIP DATABASE
Ahmed Aoude, Sultan Aldebeyan, Anas Nooh, Maryse Fortin, Peter Jarzem, Jean Ouellet, Michael Weber
McGill University, Orthopedics, Montreal, Canada

**50** REVERSIBLE AXONAL DAMAGE IS REMARKABLE IN PATIENTS WITH ACUTELY WORSENING SYMPTOMS OF COMPRESSION MYELOPATHY: ANALYSIS OF HUMAN CEREBROSPINAL FLUID SAMPLES
Hiroshi Takahashi, Yasuchika Aoki, Arata Nakajima, Masato Sonobe, Fumiaki Terajima, Masahiko Saito, Masahiro Inoue, Keita Koyama, Keiichiro Yamamoto, Koichi Nakagawa
Orthopaedic, Toho University Sakura Medical Center, Sakura, Japan

**51** ACCURACY OF POST-OPERATIVE RECALL OF BASELINE NEUROLOGICAL FUNCTION BY PATIENTS UNDERGOING SURGICAL DECOMPRESSION FOR CERVICAL SPONDYLOTIC MYELOPATHY
Nanfang Xu, Shaobo Wang, Miao Yu, Zhongjun Liu, Xiaoguang Liu
Peking University Third Hospital, Beijing, China

**52** INITIAL EVALUATION OF A 3D-PRINTED VERTEBRAL BODY FOR SINGLE-LEVEL ANTERIOR CERVICAL CORPECTOMY AND FUSION
Feng Wei, Nanfang Xu, Zhihe Li, Liang Jiang, Xiaoguang Liu, Zhongjun Liu
Peking University Third Hospital, Beijing, China

**53** TYPE 2 ODONTOID FRACTURE IN THE ELDERLY AND FUSION OF ATLANTO-ODONTOID JOINT OR CALCIFICATION OF THE TRANSVERSE LIGAMENT OF ATLAS: ANATOMICALLY CLOSE STRUCTURES CORRELATION OR CAUSATION?
Ali Rajabian, Hussein Mehidian, Michael P Grevitt
The Centre for Spinal Studies and Surgery, Queen’s Medical Centre, Nottingham, United Kingdom

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**17:30**
EUROSPINE GENERAL ASSEMBLY
Plenary Hall - Members only

**20:00**
OFFICIAL CONGRESS EVENING
(At own expense)
Attire: business/formal
Location: Hotel Adlon Berlin, Unter den Linden 77, 10117 Berlin