Scientific Program

This is the scientific program for ISASS15 and is subject to change before the conference. This document is current as of April 6, 2015.

Wednesday, April 15, 2015

8:00 am - 10:20 am - General Session: MIS

Moderator(s): John O'Toole, MD, Gurvinder S. Deol, MD

8:00 am - 8:04 am  399  Femoral Nerve Monitoring during Lateral Transpsoas Approach for Lumbar Interbody Fusion  
Speaker: K. Khajavi  
Authors: K. Khajavi(1), G. Niznik(2)  
(1)Georgia Spine and Neurosurgery Center, Atlanta, GA, United States, (2)Allied Neurodiagnostics, Kennesaw, GA, United States

Speaker: J.W. Silverstein  
Authors: J.W. Silverstein(1,2), J. Block(3), M.J. Goldstein(4,5), R. Madhok(6,7), S.K. Basra(8,9), L.E. Mermelstein(1,8), H. De Wal(8,10), H. Ball(11), J. Dowling(2,12)  
(1)North Shore LIJ Huntington Hospital, Orthopedics, Huntington, NY, United States, (2)Spine Medical Services, PLLC, Commack, NY, United States, (3)ION Intraoperative Neurophysiology, LLC, Walnut Creek, CA, United States, (4)Orthopaedic Associates of Manhasset, PC, Great Neck, NY, United States, (5)St. Francis Hospital, Orthopedics, Roslyn, NY, United States, (6)NeuroAxis Neurosurgical Associates, PC, Garden City, NY, United States, (7)St. Francis Hospital, Neurosurgery, Roslyn, NY, United States, (8)Long Island Spine Specialists, PC, Commack, NY, United States, (9)Good Samaritan Hospital Medical Center, Orthopedics, West Islip, NY, United States, (10)St. Catherine of Siena Medical Center, Orthopedics, Smithtown, NY, United States, (11)California Comprehensive Spine, PC, Walnut Creek, CA, United States, (12)Vanderbilt University, Nashville, TN, United States

8:10 am - 8:14 am  449  Can Triggered Electromyography Monitoring throughout Retraction Predict Postoperative Symptomatic Neuropraxia after XLIF? Results from a Prospective Multicenter Trial  
Speaker: R.E. Isaacs  
Authors: R.E. Isaacs(1), J.A. Youssef(2), J.S. Uribe(3), SOLAS Degenerative Study Group  
(1)Duke University Medical Center, Durham, NC, United States, (2)Spine Colorado, Durango, CO, United States, (3)University of South Florida, Tampa, FL, United States

8:15 am - 8:19 am  318  Minimally Invasive versus Open Lumbar Diskectomy: A Survivorship Analysis  
Speaker: K. Singh  
Authors: A. Marquez-Lara(1), S.V. Nandyala(1), J. Ahn(1), K. Aboushaala(1), K. Singh(1)  
(1)Rush University Medical Center, Orthopaedics, Spine Surgery, Chicago, IL, United States

8:20 am - 8:24 am  289  The Impact of Obesity on Surgical Outcomes Following a Minimally Invasive Lumbar Discectomy  
Speaker: J. Ahn  
Authors: J. Ahn(1), S.V. Nandyala(1), A. Marquez-Lara(1), K. Aboushaala(1), E. Sundberg(1), A. Jorgensen(1), H. Hassanzadeh(1), K. Singh(1)  
(1)Rush University Medical Center, Orthopaedics, Spine Surgery, Chicago, IL, United States

8:25 am - 8:34 am  Discussion

8:35 am - 8:39 am  202  Minimally Invasive Transforaminal Lumbar Interbody Fusion (TLIF) vs. Lumbar Lateral Interbody Fusion (LLIF): Patient Centered Results  
Speaker: J. Zavatsky  
Authors: D.C. Briski(1), B.W. Cook(1), J. Zavatsky(2)  
(1)Ochsner Medical Center, New Orleans, LA, United States, (2)Florida Orthopaedic Institute, Tampa, FL, United States
8:40 am - 8:44 am 309 Functional Outcomes in Worker’s Compensation Patients Following Transforaminal Lumbar Interbody Fusion  
Speaker: J. Ahn  
Authors: J. Ahn(1), A. Naqvi(1), K. Aboushaala(1), S.V. Nandyala(1), A. Marquez-Lara(1), K. Singh(1)  
(1)Rush University Medical Center, Orthopaedics, Spine Surgery, Chicago, IL, United States

8:45 am - 8:49 am 474 Minimally Invasive Transforaminal Lumbar Interbody Fusion (MIS TLIF): 2 Year Prospective Outcome Study in a Tertiary Care Hospital  
Speaker: V. Elwell  
Authors: V. Elwell(1), K. Lam(1)  
(1)Guy’s and St Thomas’ NHS Hospitals, Spinal Unit, London, United Kingdom

8:50 am - 8:54 am 238 Comparative Effectiveness of Open versus Minimally Invasive Sacroiliac Joint Fusion  
Speaker: D.W. Polly  
Authors: C.G.T. Ledonio(1), D.W. Polly(1), M.F. Swiontkowski(2), J.T. Cummings(3)  
(1)University of Minnesota, Department of Orthpaedic Surgery, Minneapolis, MN, United States, (2)TRIA Orthopaedic Center, Bloomington, MN, United States, (3)Community Neurosurgical Care, Indianapolis, IN, United States

8:55 am - 8:59 am 100 Minimally Invasive SI Joint Fusion Using Triangular Implants vs. Non-surgical Management of Chronic SI Joint Dysfunction: Results of a Prospective Multicenter Randomized Trial  
Speaker: P. Whang  
Authors: W. Rosenberg(1), D. Cher(2), C. Frank(3), J. Cummings(4), S. Kitchel(5), P. Whang(6), J. Glaser(7), D. Kovalsky(8), H. Lockstadt(9), R. Limoni(10), INSITE Study Group  
(1)Midwest Neuroscience Institute, Leawood, KS, United States, (2)Si-BONE, Inc., Clinical Affairs, San Jose, CA, United States, (3)Integrated Spine Care, Milwaukee, WI, United States, (4)Community Neurosurgery, Indianapolis, IN, United States, (5)Neurosine Institute, Eugene, OR, United States, (6)Yale University, Orthopedics, New Haven, CT, United States, (7)Medical University of South Carolina, Charleston, SC, United States, (8)Orthopedic Center of South Illinois, Mount Vernon, IL, United States, (9)Bluegrass Orthopedics, Lexington, KY, United States, (10)Aurora BayCare Orthopedic, Green Bay, WI, United States

9:00 am - 9:09 am Discussion  
Moderator(s): Kern Singh, MD, Sheeraz Qureshi, MD

Speaker: M. Alimi  
Authors: A. Parajón(1), M. Alimi(1), P. Christos(2), J.M. Torres-Campa(1), R. Navarro-Ramirez(1), Y. Moriguchi(1), R. Härtl(1)  
(1)Weill Cornell Brain and Spine Center, New York, NY, United States, (2)Weill Cornell Medical College, Department of Statistics, New York, NY, United States

9:15 am - 9:19 am 568 Open or Minimally Invasive Cervical Foraminotomy for the Treatment of Symptomatic Radiculopathy: A Meta-analysis  
Speaker: S. McAnany  
Authors: S. McAnany(1), S. Overley(2), J. Kim(2), E. Baird(3), S. Qureshi(2), P. Anderson(4)  
(1)The Mount Sinai Medical Center, New York, NY, United States, (2)Mount Sinai Medical Center, New York, NY, United States, (3)Emory University, Orthopaedics, Atlanta, GA, United States, (4)University of Wisconsin, Orthopaedics, Madison, WI, United States

9:20 am - 9:24 am 66 XLIF vs. MAS TLIF for the Treatment of Degenerative Spondylolisthesis: Interim Results from an Ongoing Prospective Multi-center Comparative Study  
Speaker: A.G. Tohmeh  
Authors: A.G. Tohmeh(1), R.E. Isaacs(2), J.N. Sembrano(3), SOLAS Degenerative Study Group  
(1)Northwest Orthopaedic Specialists, Spokane, CA, United States, (2)Duke University, Neurosurgery, Durham, NC, United States, (3)University of Minnesota, Minneapolis, MN, United States

9:25 am - 9:29 am 104 A Multicenter, Retrospective Evaluation Validating a Novel Less-invasive, Medialized Approach for Posterior Lumbar Interbody Fusion  
Speaker: N. Khanna  
Authors: G. Deol(1), N. Khanna(2), G. Poulter(3), A. Ahuja(4)  
(1)Wake Orthopedics, Raleigh, NC, United States, (2)Spine Care Specialists, Munster, IN, United States, (3)Vail Summit Orthopedics, Vail, CO, United States, (4)Neurosurgery and Endovascular Associates, Milkwaukee, WI, United States

9:30 am - 9:34 am 418 Comparison of Clinical Outcomes between TLIF and XLIF for the Treatment of Degenerative
Spondylolisthesis at L4-5: A Prospective Study
Speaker: F. Phillips
Authors: F. Phillips(1), K. Khajavi(2), A.S. Kanter(3), M.D. Peterson(4), SOLAS Degenerative Study Group
(1)Rush University Medical Center, Orthopedics, Chicago, IL, United States, (2)Georgia Spine and Neurosurgery Center, Atlanta, GA, United States, (3)UPMC Presbyterian, Division of Spine Surgery, Pittsburgh, PA, United States, (4)Southern Oregon Spine Care, E. Barnett Road, OR, United States

9:35 am - 9:44 am Discussion

9:45 am - 9:49 am 511 The Technical Learning Curve in Circumferentially Minimally Invasive Correction of Adult Spinal Deformity
Speaker: N. Anand
Authors: N. Anand(1), A. Simmonds(1), Z.M. Sardar(1), B. Khandehroo(1), S. Kahwaty(1), E.M. Baron(1)
(1)Cedars-Sinai Medical Center, Surgery/Spine Center, Los Angeles, CA, United States

9:50 am - 9:54 am 406 Vertebroplasty versus Conservative Treatment for Painful Osteoporotic Vertebral Compression Fractures, Which One Is Better? A Meta-analysis
Speaker: H. Yang
Authors: T. Liu(1), H. Yang(1)
(1)The First Affiliated Hospital of Soochow University, Suzhou, China

9:55 am - 9:59 am 342 A Comparison of Surgical Outcomes between Minimally Invasive and Open Thoracolumbar Corpectomy: A Minimum of Two-year Follow-up
Speaker: K. Singh
Authors: A. Naqvi(1), E. Tabarae(1), J. Ahn(1), K. Aboushaala(1), K. Singh(1)
(1)Rush University Medical Center, Orthopaedics, Spine Surgery, Chicago, IL, United States

10:00 am - 10:04 am 221 Metastatic Spine Tumour Surgery: A Comparative Study of Minimally Invasive Approach Using Percutaneous Pedicle Screws Fixation versus Open Approach
Speaker: N.S. Kumar
Authors: N.S. Kumar(1), P.H. Wu(2), A.S. Zaw(2), R. Malhotra(2), M. Makandura(2)
(1)National University Hospital, Orthopaedic Surgery, Singapore, Singapore, (2)National University Health System, Orthopaedic Surgery, Singapore, Singapore

10:05 am - 10:09 am 36 Perioperative Cost Analysis of Minimally-invasive versus Open Resection of Intradural-extramedullary Spinal Cord Tumors
Speaker: R.B.V. Fontes
Authors: R.B.V. Fontes(1), J.T. Wewel(1), J.E. O'Toole(1)
(1)Rush University Medical Center, Neurosurgery, Chicago, IL, United States

10:10 am - 10:20 am Discussion

10:20 am - 11:00 am - Break on Exhibit Floor

11:00 am - 12:02 am - General Session: Deformity

Moderator(s): Neel Anand, MD and Dennis Crandall, MD

11:00 am - 11:03 am 498 Predictors of Revision Surgery in Adult Spinal Deformity and Impact on Patient-reported Outcomes and Satisfaction – 2-year Follow-up
Speaker: C.M. Jalai
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (2)University of Calgary, Orthopaedic Surgery, Alberta, AB, Canada, (3)University of Virginia Medical Center, Neurosurgery, Charlottesville, VA, United States, (4)Hospital for Special Surgery, New York, NY, United States, (5)San Diego Center for Spinal Disorders, La Jolla, CA, United States, (6)University of California San Francisco, San Francisco, CA, United States, (7)University of Kansas Medical Center, Orthopaedic Surgery, Kansas City, KS, United States, (8)Rocky Mountain Hospital for Children, Orthopaedic Surgery, Denver, CO, United States, (9)University of California Davis, Orthopaedic Surgery, Sacramento, CA, United States, (10)Oregon Health and Science University, Orthopaedic Surgery, Portland, OR, United States

11:04 am - 11:07 am 303 Pushing the Limits of Circumferential Minimally Invasive Surgical Techniques for Correction of Adult Spinal Deformity: A Retrospective Review of Radiographic Outcomes Comparing an Updated Algorithm with the Antecedent Algorithm
Speaker: N. Anand
Authors: N. Anand(1), Z.M. Sardar(1), B. Khandehroo(1), A. Simmonds(1), E.M. Baron(1), S. Kahwaty(1)
11:08 am - 11:11 am 509 Ratio of Osteotomy Closure Following Lumbar Three Column Osteotomy: Level of Resection Affects Truncal versus Pelvic Compensation Correction
Speaker: J. Henry
(1) New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (2) University of California San Francisco, San Francisco, CA, United States, (3) Johns Hopkins University School of Medicine, Orthopaedic Surgery, Baltimore, MD, United States, (4) Bordeaux University Hospitals, Orthopaedic Surgery, Bordeaux, France, (5) Baylor Scoliosis Center, Plano, TX, United States, (6) University of California Davis, Sacramento, CA, United States, (7) Hospital for Special Surgery, New York, NY, United States, (8) University of Virginia Medical Center, Neurosurgery, Charlottesville, VA, United States

Speaker: E. Tanzi
(1) University of Calgary, Orthopaedic Surgery, Alberta, AB, Canada, (2) University of Kansas Medical Center, Orthopaedic Surgery, Kansas City, KS, United States, (3) New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (4) University of Virginia Medical Center, Neurosurgery, Charlottesville, VA, United States, (5) Baylor Scoliosis Center, Plano, TX, United States, (6) Hospital for Special Surgery, New York, NY, United States, (7) San Diego Center for Spinal Disorders, La Jolla, CA, United States, (8) University of California San Francisco, San Francisco, CA, United States, (9) University of Chicago, Department of Orthopaedic Surgery, Chicago, IL, United States, (10) Oregon Health and Science University, Orthopaedic Surgery, Portland, OR, United States

11:16 am - 11:19 am 499 Analysis of an Unexplored Group of Sagittal Deformity Patients: Large Sagittal Malalignment but Low Pelvic Tilt
Speaker: S. Vira
(1) New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (2) Bordeaux University Hospitals, Orthopaedic Surgery, Bordeaux, France, (3) University of Virginia, Charlottesville, VA, United States, (4) Johns Hopkins University School of Medicine, Orthopaedic Surgery, Baltimore, MD, United States, (5) University of California Davis, Sacramento, CA, United States, (6) Hospital for Special Surgery, New York, NY, United States, (7) San Diego Center for Spinal Disorders, La Jolla, CA, United States

11:20 am - 11:29 am Discussion

11:30 am - 11:33 am 514 Post Operative Cervical Deformity in 215 Thoracolumbar Adult Spinal Deformity Patients: Prevalence, Risk Factors, and Impact on Patient-reported Outcome and Satisfaction at 2 Year Follow up
Speaker: N. Worley
(1) New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (2) Northwestern Feinberg School of Medicine, Chicago, IL, United States, (3) University of Virginia, Charlottesville, VA, United States, (4) Hospital for Special Surgery, New York, NY, United States, (5) San Diego Center for Spinal Disorders, La Jolla, CA, United States, (6) University of California San Francisco, San Francisco, CA, United States, (7) University of Virginia Medical Center, Neurosurgery, Charlottesville, VA, United States, (8) Hospital for Special Surgery, New York, NY, United States

11:34 am - 11:37 am 494 Risk of Development of New Onset Post Operative Cervical Deformity (CD) in Thoracolumbar Adult Spinal Deformity (ASD) and Effect on Clinical Outcomes at 2 Year Follow up
Speaker: C.M. Jalai
(1) University of Calgary, Orthopaedic Surgery, Alberta, AB, Canada, (2) New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (3) San Diego Center for Spinal Disorders, La Jolla, CA, United States, (4) University of Virginia Medical Center, Neurosurgery, Charlottesville, VA, United States, (5) Hospital for Special Surgery, New York, NY, United States, (6) Cedars-Sinai Medical Center, Surgery/Spine Center, Los Angeles, CA, United States
11:38 am - 11:41 am 308 Comparative Analysis of Adult Deformity Surgery in the Elderly
Speaker: N. Worley
Authors: B.J. Marascalchi(1), P.G. Passias(1), T.J. Errico(1), N. Worley(1)
(1)NYU Hospital for Joint Diseases, Department of Orthopaedic Surgery, NYC, NY, United States

11:42 am - 11:47 am 479 Are Intraspinal Anomalies in Early Onset Idiopathic Scoliosis as Common as Once Thought? A Two Centre United Kingdom Study
Speaker: V. Elwell
Authors: V. Elwell(1), T. Koc(1), K. Lam(1)
(1)Guy's and St Thomas' NHS Hospitals, Spinal Unit, London, United Kingdom

11:48 am - 11:51 am 352 Novel Index to Quantify the Risk of Surgery in the Setting of Adult Spine Deformity: A Study Based on 10912 Patients from the National Inpatient Sample
Speaker: B.G. Diebo
Authors: B.G. Diebo(1), P.G. Passias(2), V. Lafage(2), V. Challier(2), B.J. Marascalchi(2), C.M. Jalai(2), N.J. Worley(2)
(1)NYU Langone Medical Center, Department of Orthopaedic Surgery, New York City, NY, United States, (2)NYU Hospital for Joint Diseases, Department of Orthopaedic Surgery, New York City, NY, United States

11:52 pm - 12:02 pm Discussion

12:00 pm - 1:30 pm - Industry Workshops (not CME)

1:30 pm - 2:30 pm - Symposium: Avoiding Errors in Spinal Surgery

Moderator(s): Svante Berg, MD, PhD

1:30 pm - 1:42 pm Selecting the Right Patient - Paul Slosar, MD

1:43 pm - 1:54 pm What Fusion Materials Work and Don't Work: The Evidence - Ashish Diwan, MD, PhD

1:55 pm - 2:06 pm Sagittal Alignment - Jean-Charles LeHuec, MD, PhD

2:07 pm - 2:18 pm When is MIS Not Ideal? - William Taylor, MD

2:19 pm - 2:30 pm Q&A

2:30 pm - 3:35 pm - General Session: Thoracolumbar Degenerative

Moderator(s): Domagoj Coric, MD, Steven Garfin, MD

2:30 pm - 2:34 pm 280 Long-term Follow-up of Disc Degeneration after Discography
Speaker: J.-W. Hur
Authors: J.-W. Hur(1), K.-S. Ryu(1), J.-S. Kim(1), W.-S. Choi(1)
(1)Seoul St. Mary's Hospital, The Catholic University of Korea, Neurosurgery, Spine Center, Seoul, Korea, Republic of

2:35 pm - 2:39 pm 93 Preoperative, Operative and Postoperative Comparisons between the Anterior, Posterior and Combined Approaches to Lumbar Interbody Fusion
Speaker: C. Wang
Authors: C. Wang(1), G. Medvedev(2), J. Babrowicz(3), R. Amdur(4), J. O'Brien(2)
(1)Eastern Virginia Medical School, Norfolk, VA, United States, (2)George Washington University, Orthopaedics, Washington, DC, United States, (3)George Washington University, Vascular Surgery, Washington, DC, United States, (4)George Washington University, Biostatistics, Washington, DC, United States

2:40 pm - 2:44 pm 245 Open vs. MAS PLIF: Perioperative Results from a Multi-center Study
Speaker: D. Jones
Authors: D. Jones(1), T. Kuether(2)
(1)Carolina Neurosurgery and Spine Associates, Greensboro, NC, United States, (2)Kuether Brain and Spine, Tualatin, OR, United States

2:45 pm - 2:49 pm 424 Comparison of Outcomes for Lumbar Fusion in the Treatment of Degenerative Spondylolisthesis and Degenerative Disc Disease: A Prospective Study
Speaker: F. Phillips
Authors: F. Phillips(1), K. Khajavi(2), A. Kanter(3), M.D. Peterson(4), SOLAS Degenerative Study Group
2:50 pm - 2:54 pm  185  Stand-alone Anterior Lumbar Interbody Fusion in Treatment of Lumbar Spondylosis: A Comparison of Autologous Morselized versus Tricortical Iliac Crest Bone Grafting
Speaker: J.J. Yue
Authors: J.J. Yue(1), P. Diaz Collado(1), D. Scott(1)
(1)Yale University School of Medicine, Orthopaedic Surgery, New Haven, CT, United States

2:55 pm - 3:04 pm  Discussion

3:05 pm - 3:09 pm  149  Quantitative Evaluation of Neuroforaminal Area Following Extreme Lateral Interbody Fusion with Cage in Peek
Speaker: M. Balsano
Authors: M. Balsano(1), A. Zachos(1), C. Doria(2), P. Tranquilli Leali(3)
(1)Alto Vincentino Hospital, Santorso, Italy, (2)Sassari University, Orthopaedic, Sassari, Italy, (3)University of Sassari, Sassari, Italy

3:10 pm - 3:14 pm  198  Long-term Work Capability 6 Years after Spinal Arthrodesis for Adult Deformity vs. Degenerative Disease: Clinical, Functional, and Occupational Outcomes
Speaker: D.G. Crandall
Authors: D.G. Crandall(1), J. Revella(2), M.S. Chang(1), J. Datta(1), T. Crowder(1), L. Young(1), R. Mclemore(3)
(1)Sonoran Spine Center, Tempe, AZ, United States, (2)Sonoran Spine Research and Education Foundation, Tempe, AZ, United States, (3)Banner Samaritan Orthopaedic Residency Program, Phoenix, AZ, United States

3:15 pm - 3:19 pm  475  Confirming the Carragee Massive-defect Results: Lumbar Discectomy Patients at High Risk of Reherniation
Speaker: J. Kienzler
Authors: G.J. Bouma(1), A. Kursumovic(2), J. Kienzler(3), C. Thome(4), R. Bostelmann(5)
(1)Sint Lucas Andreas Ziekenhuis, Neurosurgery, Amsterdam, Netherlands, (2)Klinikum Deggendorf, Deggendorf, Germany, (3)Kantonsspital Aarau AG, Neurosurgery, Aarau, Switzerland, (4)Medizinische Universität Innsbruck, Neurosurgery, Innsbruck, Austria, (5)University Clinics of Düsseldorf, Düsseldorf, Germany

3:20 pm - 3:24 pm  416  Lateral versus Anterior Lumbar Interbody Fusion: Intraoperative Outcomes from a Prospective Multi-center Study
Speaker: K.D. Kim
Authors: K.D. Kim(1), C. Ferry(2), C. Moore(3), K. Martin(2,3), B. Strenge(4)
(1)University of California Davis Medical Center, Sacramento, CA, United States, (2)Biomet Spine, LLC, Broomfield, CO, United States, (3)University of Colorado Anschutz Medical Campus, Aurora, CO, United States, (4)The Orthopaedic Institute, Paducah, KY, United States

3:25 pm - 3:35 pm  Discussion

3:35 pm - 4:00 pm  Break on Exhibit Floor

4:00 pm - 5:05 pm  General Session: Imaging and Applications

4:00 pm - 4:04 pm  257  Modeling Thoracic Volume for Adolescent Idiopathic Scoliosis
Speaker: D.W. Polly
Authors: C.G.T. Ledonio(1), N.A. Larson(2), D.W. Polly(1), B. Rosenstein(3), D.J. Nuckley(3)
(1)University of Minnesota, Department of Orthpaedic Surgery, Minneapolis, MN, United States, (2)Mayo Clinic, Rochester, MN, United States, (3)University of Minnesota, Minneapolis, MN, United States

4:05 pm - 4:09 pm  524  Are Established Targets for Spinal Deformity Correction Valid? Pre- to Postoperative Analysis Using the T1 Pelvic Angle (TPA), a Novel Radiographic Parameter of Sagittal Deformity
Speaker: B. Harris
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (2)University of Virginia Medical Center, Neurosurgery, Charlottesville, VA, United States, (3)Hospital for Special Surgery, New York, NY, United States, (4)San Diego Center for Spinal Disorders, La Jolla, CA, United States, (5)University of California San Francisco, San Francisco, CA, United States, (6)Rocky Mountain Hospital for Children, Orthopaedic Surgery, Denver, CO, United States, (7)University of California Davis, Sacramento, CA, United States, (8)Oregon Health and Science University, Orthopaedic Surgery, Portland, OR, United States
4:10 pm - 4:14 pm  306 Posterior Reduction and Monosegmental Fusion with Intraoperative 3-dimensional Navigation System in the Treatment of High-grade Developmental Spondylolisthesis
Speaker: W. Tian
Authors: W. Tian(1), X. Han(1)
(1)Beijing Jishuitan Hospital, Spine Surgery, Beijing, China

4:15 pm - 4:19 pm  545 Tridimensional Analysis of Rotatory Subluxation and Sagittal Spino-pelvic Alignment in the Setting of Adult Spinal Deformity
Speaker: V. Lafage
Authors: E. Ferrero(1,2), R. Lafage(1), S. Vira(1), B.G. Diebo(1), B. Ilharreborde(3), F. Schwab(1), W. Skalli(4), V. Lafage(1)
(1)NYU Hospital for Joint Diseases, New York, NY, United States, (2)Hopital Europeen Georges Pompidou, Paris, France, (3)Hopital Robert Debre, Paris, France, (4)Laboratoire de Biomécanique, Paris, France

4:20 pm - 4:24 pm  51 A New Method Correlating an Objective Radiographic Metric for Lumbar Spine Stability and the Facet Fluid Sign on MRI
Speaker: R.D. Guyer
Authors: J. Hipp(1), R.D. Guyer(2), D.D. Ohnmeiss(3)
(1)Medical Metrics, Inc., Houston, TX, United States, (2)Texas Back Institute, Plano, TX, United States, (3)Texas Back Institute Research Foundation, Plano, TX, United States

4:25 pm - 4:29 pm  Discussion

4:35 pm - 4:39 pm  358 Minimally Invasive Technique for Placement of Sacroiliac Arthrodesis Implants Using O-Arm and Stealth Navigation
Speaker: V. Patel
Authors: C.J. Kleck(1), J. Perry(1), E. Burger(1), C. Cain(1), V. Patel(1)
(1)University of Colorado Anschutz Medical Campus, Aurora, CO, United States

4:40 pm - 4:44 pm  26 An Assessment of the Learning Curve Associated with Robotic-assisted Pedicle Screw Insertion
Speaker: P. Moazzaz
Authors: J.A. Sclafani(1), K. Liang(1), P. Moazzaz(2), J. Dunlap(2), N. Alleyne(2)
(1)Milestone Research Organization, San Diego, CA, United States, (2)Tri-City Medical Center - Orthopedic Specialists of North County, Oceanside, CA, United States

4:45 pm - 4:49 pm  228 The Impact of Dynamic Alignment, Motion and Center of Rotation on Myelopathy Grade and Regional Disability in Cervical Spondylotic Myelopathy
Speaker: R. Lafage
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (2)University of Virginia, Charlottesville, VA, United States, (3)Bordeaux University Hospitals, Orthopaedic Surgery, Bordeaux, France, (4)Hospital for Special Surgery, New York, NY, United States, (5)University of Kansas, Kansas City, KS, United States, (6)University of Washington, Seattle, WA, United States, (7)University of Toronto, Toronto, ON, Canada, (8)Emory University, Georgia, GA, United States, (9)University of California San Francisco, San Francisco, CA, United States

4:50 pm - 4:54 pm  281 The Clinical Usefulness of Preoperative Imaging Studies to Select Pathologic Level in Cervical Spondylotic Myelopathy: Comparative Analysis of Three-position MRI and Post-myelographic CT
Speaker: J.-W. Hur
Authors: J.-W. Hur(1), K.-S. Ryu(1), J.-S. Kim(1), W.-S. Cho(1)
(1)Seoul St. Mary's Hospital, The Catholic University of Korea, Neurosurgery, Spine Center, Seoul, Korea, Republic of

4:55 pm - 5:05 pm  Discussion

5:00 pm - 6:00 pm - Oral Posters: MIS

Moderator(s): James Yue, MD

5:00 pm - 5:04 pm  301 Outcomes Comparison between Unilateral and Bilateral Minimally Invasive Transforaminal Lumbar Interbody Fusion
Speaker: K. Singh
Authors: J. Ahn(1), K. Aboushaala(1), A. Naqvi(1), S.V. Nandyala(1), A. Marquez-Lara(1), K. Singh(1)
(1)Rush University Medical Center, Orthopaedics, Spine Surgery, Chicago, IL, United States

5:05 pm - 5:09 pm  274 Transforaminal Percutaneous Endoscopic Lumbar Discectomy for Upward Migration of Upper
5:05 pm - 5:09 pm  
Transforaminal Percutaneous Endoscopic Lumbar Discectomy for Upward Migration of Upper Lumbar Foraminal Disc Herniation: Clinical and Radiological Outcomes and Technical Considerations  
Speaker: C.K. Park  
Authors: C.K. Park(1)  
(1)The Leon Wiltse Memorial Hospital, Suwon, Korea, Republic of

5:10 pm - 5:14 pm  
Accuracy of Percutaenous Pedicle Screw Placement: Does Training Level Matter?  
Speaker: S.C. Overley  
Authors: E.O. Baird(1), S.J. McAnany(1), S.C. Overley(1), B. Skovrlj(1), J.Z. Guzman(1), S.A. Qureshi(1)  
(1)Mount Sinai Medical Center, Orthopaedic Surgery, New York, NY, United States

5:15 pm - 5:19 pm  
Interspinous Process Fixation versus Pedicle Screw Fixation: Intraoperative Outcomes in a Prospective Randomized Multi-center Trial  
Speaker: K.D. Kim  
Authors: K.D. Kim(1), K. Martin(2,3), C. Ferry(2), C. Moore(3), B. Strenge(4)  
(1)University of California Davis Medical Center, Sacramento, CA, United States, (2)Biomet Spine, LLC, Broomfield, CO, United States, (3)University of Colorado Anschutz Medical Campus, Aurora, CO, United States, (4)The Orthopaedic Institute, Paducah, KY, United States

5:20 pm - 5:24 pm  
Comparative Study at Difference of Perioperative Complication, Cage Location and Sagittal Alignment; MIS-OLIF (Minimally Invasive Oblique Lateral Lumbar Interbody Fusion) vs. MIS-DLIF (Direct Lateral Lumbar Interbody Fusion)  
Speaker: J.-W. Hur  
Authors: J.-W. Hur(1), K.-S. Ryu(1), J.-S. Kim(1), W.-S. Choi(1)  
(1)Seoul St. Mary's Hospital, The Catholic University of Korea, Neurosurgery, Spine Center, Seoul, Korea, Republic of

5:25 pm - 5:29 pm  
Sacroiliac Joint Fusion Revision Surgery  
Speaker: D.W. Polly  
Authors: D.W. Polly(1), C.G.T. Ledonio(1), T.C. Garber(1)  
(1)University of Minnesota, Department of Orthopaedic Surgery, Minneapolis, MN, United States

5:30 pm - 5:34 pm  
Five-year Clinical and Radiographic Outcomes after Minimally Invasive Sacroiliac Joint Fusion Using Triangular Implants  
Speaker: L. Rudolf  
Authors: L. Rudolf(1)  
(1)Alice Peck Day Memorial Hospital, Department of Orthopedics, Lebanon, NH, United States

5:35 pm - 5:39 pm  
Interim Analysis of Trial Comparing Lumbar Decompression with or without Interlaminar Stabilization  
Speaker: M. Rauschmann  
Authors: M. Rauschmann(1), D. Adelt(2), J. Franke(3), S. Schmidt(4), S. Sola(5), R.J. Davis(6), G. Maislin(7)  
(1)Orthopädische Universitätsklinik Friedrichsheim, Department of Spine Surgery, Frankfurt am Main, Germany, (2)HELIOS KLINIK Ostseeklinik Damp, Department of Neurosurgery and Spine Surgery, Damp, Germany, (3)Klinikum Dortmund, Clinic for Spine Surgery, Dortmund, Germany, (4)University of Frankfurt, Department of Spine Surgery, Frankfurt am Main, Germany, (5)University of Rostock, Department of Neurosurgery, Rostock, Germany, (6)Greater Baltimore Medical Center, Neurosurgery, Baltimore., MD, United States, (7)Biomedical Statistical Consulting, Wynnewood, PA, United States

5:40 pm - 5:44 pm  
Correlation of the Ratio of “Translation Per Degree of Rotation” with Clinical Outcomes for Decompression with Interlaminar Stabilization vs. Posterolateral Fusion at Four Years Post-op  
Speaker: H.W. Bae  
Authors: H.W. Bae(1,2), R.J. Davis(3), T.J. Errico(4), C. Lauryssen(5), S.P. Leary(6)  
(1)The Spine Institute, Orthopedic Surgery, Santa Monica, CA, United States, (2)Cedars-Sinai Medical Center, Surgery, Spine Center, Los Angeles, CA, United States, (3)GBMC Healthcare, Baltimore, MD, United States, (4)New York University Langone Medical Center, New York, NY, United States, (5)Olympia Medical Center, Los Angeles, CA, United States, (6)Alvarado Hospital, San Diego, CA, United States

5:45 pm - 5:49 pm  
Speaker: D.P. Lindsey  
Authors: H. Soriano-Brown(1), D.P. Lindsey(2), N. Rodriguez-Martinez(1), P. Reyes(1), A. Newcomb(1), S.A. Yerby(2), N. Crawford(1)  
(1)Barrow Neurological Institute, Phoenix, AZ, United States, (2)SI-BONE, Inc., San Jose, CA, United States

5:50 pm - 6:00 pm  
Discussion

5:00 pm - 6:00 pm - Oral Posters: Cervical
5:00 pm - 5:04 pm 153 Stability of Measures Assessing Clinical Outcome Following Anterior Cervical Spine Surgery
Speaker: D.D. Ohnmeiss
Authors: D.D. Ohnmeiss(1), R.D. Guyer(2), J.E. Zigler(2)
(1)Texas Back Institute Research Foundation, Plano, TX, United States, (2)Texas Back Institute, Plano, TX, United States

5:05 pm - 5:09 pm 54 Cervical Spine Dysfunction and Axial Pain after Posterior Decompression Surgery Using Mesh Plates for Patients with Cervical Myelopathy
Speaker: M. Kawakami
Authors: M. Kawakami(1), Y. Ishimoto(1), K. Nagata(1), T. Kitagawa(1), S. Morishita(1), T. Matsuoka(1)
(1)Wakayama Medical University Kihoku Hospital, Spine Care Center, Ito gu, Japan

5:10 pm - 5:14 pm 310 The Impact of Advanced Age on Peri-operative Outcomes in the Surgical Treatment of Cervical Spondylotic Myelopathy
Speaker: B.G. Diebo
Authors: A.E. Macagno(1), B.J. Marascalchi(1), P.G. Passias(1), N.J. Worley(1), C.M. Jalai(1), K. Bianco(1), M.C. Gerling(1), J.A. Bendo(1), B.G. Diebo(2)
(1)NYU Hospital for Joint Diseases, Department of Orthopaedic Surgery, NYC, NY, United States, (2)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States

5:15 pm - 5:19 pm 569 A Meta-analysis of the Treatment of Symptomatic Cervical Pseudoarthrosis
Speaker: S. McAnany
Authors: S. McAnany(1), E. Baird(2), S. Overley(1), S. Qureshi(1), P. Anderson(3)
(1)Mount Sinai Medical Center, New York, NY, United States, (2)Emory University, Orthopaedics, Atlanta, GA, United States, (3)University of Wisconsin, Orthopaedics, Madison, WI, United States

5:20 pm - 5:24 pm 311 Non-operative Treatment Modalities Prior to Cervical Surgery Affects Patient Outcomes: An Analysis of 1818 Patients
Speaker: M. Spiegel
(1)Duke University Medical Center, Department of Neurosurgery, Durham, NC, United States, (2)NYU Hospital for Joint Diseases, Department of Orthopaedic Surgery, NYC, NY, United States, (3)Thomas Jefferson University Hospital and the Rothman Institute, Department of Orthopaedic Surgery, Philadelphia, PA, United States, (4)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States

5:25 pm - 5:29 pm 551 Minimally Invasive Bilateral Cervical Laminotomy with an Unilateral Approach for Cervical Spinal Stenosis
Speaker: J. Shen
Authors: J. Shen(1)
(1)Mohawk Valley Orthopedics, PC, Amsterdam, NY, United States

5:30 pm - 5:34 pm 326 Restoration of Cervical Alignment Is Associated with Improved Outcome in One or Two Level Anterior Cervical Discectomy and Fusion (ACDF) Surgeries
Speaker: I.H. Lieberman
Authors: I.H. Lieberman(1), X. Hu(1)
(1)Texas Back Institute, Texas Health Presbyterian Hospital Plano, Scoliosis and Spine Tumor Center, Plano, TX, United States

5:35 pm - 5:39 pm 518 Full Body EOS Dynamic Radiographic Analysis of Laminoplasty vs Posterior Cervical Decompression/fusion Patients Correlated to HRQOL
Speaker: M. Spiegel
Authors: T. Protoschitz(1), R. Lafage(1), M. Spiegel(1), E. Ferrero(1), J. Oren(1), T. Errico(1), S. Vira(1), B.G. Diebo(1), F. Schwab(1), V. Lafage(1)
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States

5:40 pm - 5:44 pm 46 Comparison of One-level versus Two-level Anterior Cervical Discectomy and Fusion: Clinical and Radiographic Follow-up at 60 Months in Patients Serving as Control Groups in Randomized Trials
Speaker: D.D. Ohnmeiss
Authors: J.E. Zigler(1), R.W. Rogers(2), D.D. Ohnmeiss(2)
(1)Texas Back Institute, Plano, TX, United States, (2)Texas Back Institute Research Foundation, Plano, TX, United States

5:45 pm - 5:49 pm 330 Disparities in Peri-operative Outcomes of Cervical Spondylotic Myelopathy Based on Surgical
5:00 pm - 6:00 pm - Oral Posters: Deformity

Moderator(s): Jean-Jacques Abitbol, MD

5:00 pm - 5:04 pm  523 The Lumbar Pelvic Angle (LPA), the Lumbar Component of the Fan of Spinopelvic Alignment, Correlates with HRQOL and PI-LL Mismatch and Predicts Global Alignment
Speaker: V. Lafage
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (2)University of Virginia, Charlottesville, VA, United States, (3)University of California Davis, Orthopaedic Surgery, Sacramento, CA, United States, (4)University of San Francisco, San Francisco, CA, United States, (5)University of Kansas Medical Center, Orthopaedic Surgery, Kansas City, KS, United States, (6)Northwestern Feinberg School of Medicine, Chicago, IL, United States, (7)Oregon Health and Science University, Orthopaedic Surgery, Portland, OR, United States

5:05 pm - 5:09 pm  519 Reaching Minimal Clinically Important Difference through Non-operative Treatment of Adult Spinal Deformity
Speaker: N. Worley
Authors: S. Liu(1), B. Liabaud(1), N. Worley(1), J. Smith(2), R. Hostin(3), C. Shaffrey(2), M. Cunningham(4), G. Mundis(5), C. Ames(6), D. Burton(7), S. Bess(8), R. Hart(9), F. Schwab(1), V. Lafage(1), ISSG
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (2)University of Virginia, Charlottesville, VA, United States, (3)Baylor Scoliosis Center, Plano, TX, United States, (4)Hospital for Special Surgery, New York, NY, United States, (5)San Diego Center for Spinal Disorders, La Jolla, CA, United States, (6)University of California San Francisco, San Francisco, CA, United States, (7)University of Kansas Medical Center, Orthopaedic Surgery, Kansas City, KS, United States, (8)Rocky Mountain Hospital for Children, Orthopaedic Surgery, Denver, CO, United States, (9)Oregon Health and Science University, Orthopaedic Surgery, Portland, OR, United States

5:10 pm - 5:14 pm  512 Discrepancies in Preoperative Planning and Operative Execution in the Correction of Sagittal Spinal Deformities
Speaker: J. Henry
Authors: B. Moal(1), V. Lafage(2), J. Henry(2), S. Maier(2), S. Liu(2), V. Challier(2), B.G. Diebo(2), W. Skalli(1), T. Protopsaltis(2), T. Errico(2), F. Schwab(2)
(1)Laboratoire de Biomécanique, Paris, France, (2)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States

5:15 pm - 5:19 pm  488 Does One Size Fit All? Defining Spino-pelvic Alignment Thresholds Based on Age
Speaker: B. Harris
Authors: F. Schwab(1), R. Lafage(1), B. Harris(1), J. Smith(2), R. Hostin(3), C. Shaffrey(4), O. Boachie-Adjei(5), G. Mundis(6), C. Ames(7), D. Burton(8), S. Bess(9), M. Gupta(10), R. Hart(11), T. Protopsaltis(1), V. Lafage(1), International Spine Study Group (ISSG)
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (2)University of Virginia, Charlottesville, VA, United States, (3)Baylor Scoliosis Center, Plano, TX, United States, (4)University of Virginia Medical Center, Neurosurgery, Charlottesville, VA, United States, (5)Hospital for Special Surgery, New York, NY, United States, (6)San Diego Center for Spinal Disorders, La Jolla, CA, United States, (7)University of California San Francisco, San Francisco, CA, United States, (8)University of Kansas Medical Center, Orthopaedic Surgery, Kansas City, KS, United States, (9)Rocky Mountain Hospital for Children, Orthopaedic Surgery, Denver, CO, United States, (10)University of California Davis, Sacramento, CA, United States, (11)Oregon Health and Science University, Orthopaedic Surgery, Portland, OR, United States

5:20 pm - 5:24 pm  495 Sagittal Plane Analysis: Role of Pelvic Translation and the Lower Extremities in Compensation to Spinal Deformity
Speaker: S. Vira
Authors: E. Ferrero(1), S. Vira(1), B. Liabaud(1), V. Challier(1), R. Lafage(1), B.G. Diebo(1), S. Liu(1), T. Protopsaltis(1), T. Errico(1), F. Schwab(1), V. Lafage(1)
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States
5:25 pm - 5:29 pm 478 Three-column Osteotomies in Elderly Patients: Is It Worth It?  
Speaker: B. Liabaud  
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (2)University of California San Francisco, San Francisco, CA, United States, (3)Johns Hopkins University School of Medicine, Orthopaedic Surgery, Baltimore, MD, United States, (4)Bordeaux University Hospitals, Orthopaedic Surgery, Bordeaux, France, (5)Baylor Scoliosis Center, Plano, TX, United States, (6)University of California Davis, Orthopaedic Surgery, Sacramento, CA, United States, (7)Hospital for Special Surgery, New York, NY, United States, (8)University of Virginia Medical Center, Neurosurgery, Charlottesville, VA, United States, (9)San Diego Center for Spinal Disorders, La Jolla, CA, United States

5:30 pm - 5:34 pm 515 Fine-Tuned Surgical Planning in Adult Spinal Deformity: Determining the Lumbar Lordosis Necessary by Accounting for Both Thoracic Kyphosis and Pelvic Incidence  
Speaker: J. Oren  
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (2)University of Virginia Medical Center, Neurosurgery, Charlottesville, VA, United States, (3)Baylor Scoliosis Center, Plano, TX, United States, (4)Hospital for Special Surgery, New York, NY, United States, (5)San Diego Center for Spinal Disorders, La Jolla, CA, United States, (6)University of California San Francisco, San Francisco, CA, United States, (7)University of Kansas Medical Center, Orthopaedic Surgery, Kansas City, KS, United States, (8)Rocky Mountain Hospital for Children, Orthopaedic Surgery, Denver, CO, United States, (9)University of California Davis, Sacramento, CA, United States, (10)Oregon Health and Science University, Orthopaedic Surgery, Portland, OR, United States

5:35 pm - 5:39 pm 573 Metal Memory May Lead to Spontaneous Additional Kyphosis Correction after Posterior Instrumented Fusion in Schuermann’s Kyphosis Patients  
Speaker: K.C. Kose  
Authors: K.C. Kose(1), I.F. Caliskan(2), M.E. Inanmaz(2), E. Bal(3), M. Korkmaz(4)  
(1)Marmara University, Orthopedics and Traumatology, Istanbul, Turkey, (2)Sakarya University, Orthopedics and Traumatology, Sakarya, Turkey, (3)Bahcelievler Devlet Hastanesi, Orthopedics and Traumatology, Istanbul, Turkey, (4)Sisli Etfal Hospital, Orthopedics and Traumatology, Istanbul, Turkey

5:40 pm - 5:44 pm 590 TDR and ALIF in Adult Scoliosis Treatment: A Study about 123 Patients  
Speaker: T. Marnay  
Authors: T. Marnay(1), G. Edgar-Rosa(2), G. Geneste(2)  
(1)Montpellier Spine Institute, Spine Department, Castelnau le Lez, France, (2)Montpellier Spine Institute, Montpellier, France

5:45 pm - 5:49 pm 307 Circumferentially Minimally Invasive Thoraco-pelvic Fusion in Adult Patients with Spinal Deformity  
Speaker: N. Anand  
Authors: N. Anand(1), A. Simmonds(1), Z.M. Sardar(1), B. khandehroo(1), S. Kahwaty(1), E.M. Baron(1)  
(1)Cedars-Sinai Medical Center, Surgery/ Spine Center, Los Angeles, CA, United States

5:50 pm - 6:00 pm Discussion

5:00 pm - 6:00 pm - Oral Posters: Basic Science

5:00 pm - 5:04 pm 105 RANK/RANKL/OPG System in the Rat Intervertebral Disc  
Speaker: K. Akeda  
Authors: N. Takegami(1), K. Akeda(1), K. Murata(1), J. Yamada(1), A. Sudo(1)  
(1)Mie University Graduate School of Medicine, Department of Orthopedic Surgery, Tsu City, Japan

5:05 pm - 5:09 pm 419 Biomechanical Evaluation of an Internal Pelvic Fixator for the Stabilization of Transforaminal Sacral Fractures  
Speaker: A. Saoud  
Authors: A. Saoud(1), A. Wakefield(2), L. Ferraara(3), M. Kodigudla(4), A. Kelkar(4), S. Sudershan(4), V. Goel(4)  
(1)Ain Shams University Medical School, Cairo, Egypt, (2)Hartford Hospital, Hartford, CT, United States, (3)OrthoKinetic Technologies, Southport, NC, United States, (4)The University of Toledo, Departments of Bioengineering and Orthopaedics, Toledo, OH, United States
5:10 pm - 5:14 pm  226 The Stabilizing Impact of Fracture Screws and Cross-connectors in the Comparison of Short-and Long-segment Posterior-only Treatment of an Unstable Thoracolumbar Burst Fracture in a Cadaveric Model
Speaker: V. Bartanusz
Authors: V. Bartanusz(1), J. Harris(2), M. Moldovsky(2), Y. Cai(2), O. Elkassabany(2), B. Bucklen(2)
(1)UT Health Science Center, Department of Neurosurgery, San Antonio, TX, United States, (2)Globus Medical, Inc., Research, Audubon, PA, United States

5:15 pm - 5:19 pm  40 Lordosis Changes in the Cervical Spine Adjacent to Deformity Correction with Supraphysiologic Lordotic Implants: An in vitro Evaluation Biomechanical Comparison of Unilateral and Bilateral Fixation Techniques
Speaker: D.J. Blaskiewicz
Authors: D.J. Blaskiewicz(1), J.E. Harris(2), A.W. Turner(2), P. Han(3), G.M. Mundis(4)
(1)Neurosurgical Medical Clinic, Inc, San Diego, CA, United States, (2)NuVasive, San Diego, CA, United States, (3)St. John Health System, Neuroscience Institute, Tulsa, OK, United States, (4)San Diego Center for Spinal Disorders, San Diego, CA, United States

5:20 pm - 5:24 pm  483 Segmental Comparison of in vitro Facet Translations in the Lumbar Spine
Speaker: D.J. Cook
Authors: M.S. Yeager(1), D.J. Cook(1), B.C. Cheng(1)
(1)Allegheny Health Network, Department of Neurosurgery, Spine & Biomechanics Laboratory, Pittsburgh, PA, United States

5:25 pm - 5:29 pm  427 Intervertebral Disc Dimensions and Gender Differences in Lumbar Flexion/Extension Range of Motion
Speaker: J.B. Billys
Authors: J.B. Billys(1), D.J. Cook(2), M.S. Yeager(2), A.F. Cabezas(1), B.G. Santoni(1), Q. Zou(3), Y. Yao(3), B.C. Cheng(2)
(1)Foundation for Orthopaedic Research & Education, Phillip Spiegel Orthopaedic Research Laboratory, Tampa, FL, United States, (2)Allegheny Health Network, Department of Neurosurgery, Spine & Biomechanics Laboratory, Pittsburgh, PA, United States, (3)Peoples Republic of China Hospital (11)(7), Hangzhou, China

5:30 pm - 5:34 pm  351 In-vivo T2 Relaxation Times of Asymptomatic Cervical Intervertebral Discs
Speaker: T.D. Cha
Authors: S.J. Driscoll(1), S. Wang(1), W. Zhong(1), M. Torriani(1), K.B. Wood(1), G. Li(1), T.D. Cha(1)
(1)Massachusetts General Hospital, Orthopaedic Surgery, Boston, MA, United States

5:35 pm - 5:39 pm  254 Thoracic Volume Modeling: Virtual Sagittal Curve Progression
Speaker: E.R. Santos
Authors: K. England(1), C.G.T. Ledonio(1), D.W. Polly(1)
(1)University of Minnesota, Department of Orthpaedic Surgery, Minneapolis, MN, United States

5:40 pm - 5:44 pm  231 Single-segment Spinal Instrumentation with Index Vertebra Pedicle Screw Placement for Pathologies Involving the Anterior and Middle Vertebral Column Is Equally Effective as Multi-level Segmental Stabilization with Corpectomy Reconstruction: A Biomechanical Study
Speaker: V. Bartanusz
Authors: V. Bartanusz(1), J. Harris(2), M. Moldovsky(2), Y. Cai(2), O. Elkassabany(2), B. Bucklen(2)
(1)UT Health Science Center, Department of Neurosurgery, San Antonio, TX, United States, (2)Globus Medical, Inc., Research, Audubon, PA, United States

5:45 pm - 5:49 pm  17 Influence of Local Vancomycin on the Regenerative Potential of Human Osteoblasts
Speaker: C. Eder
Authors: C. Eder(1), S. Schenk(1), J. Trifinopoulos(1), B. Külekci(2), M. Kienzl(3), S. Schildböck(1), M. Ogon(1)
(1)Orthopädisches Spital Wien - Speising, Wirbelsäulenzentrum, Wien, Austria, (2)Universität für Bodenkultur, Wien, Austria, (3)Karl Franzens Universität Graz, Graz, Austria

5:50 pm - 6:00 pm  Discussion

5:00 pm - 6:00 pm - Oral Posters: Motion Preservation

Moderator(s): Morgan Lorio, MD, FACS

5:00 pm - 5:04 pm  119 Keeled versus Non-keeled CDR in and Ambulatory Surgical Setting
Speaker: R.A. Kube
Authors: R.A. Kube(1)
(1)Prairie Spine & Pain Institute, Peoria, IL, United States

5:05 pm - 5:09 pm  516 Results of an Independent Statistical Analysis from the FDA-approved Clinical and
5:10 pm - 5:14 pm 216 Prospective Pilot Evaluation of the Viscoelastic Cervical Disk Prosthesis CP ESP after One Year Implantation: Clinical Outcomes and Radiological Results for Range of Motion and Centers of Rotation
Speaker: J.Y. Lazennec
Authors: J.Y. Lazennec(1), O. Ricart(2), J.P. Rakover(3)
(1)Pitié Salpêtrière, Paris, France, (2)Kirchberg Hospital, Luxembourg, Luxembourg, (3)Clinique du Pré, Le Mans, France

5:15 pm - 5:19 pm 212 Return to Work Comparison for Workers Compensation Patients Treated with Cervical Disc Arthroplasty versus Anterior Cervical Discectomy and Fusion
Speaker: J. Larson
Authors: J.J. Larson(1), C.C. Buchanan(1)
(1)Coeur d’Aleene Spine and Brain, Coeur d’Alene, ID, United States

5:20 pm - 5:24 pm 219 Cervical Arthroplasty Implant Subsidence and Failure - What Is the Cause and What Should We Learn?
Speaker: A.J. Berg
Authors: A.J. Berg(1,2), M.-C. Killen(1), G. Reddy(1), T. Friesem(1)
(1)University Hospital of North Tees, Spinal Unit, Stockton-on-Tees, United Kingdom, (2)The Pennine Acute Hospitals NHS Trust (LET), Manchester, United Kingdom

5:25 pm - 5:29 pm 110 The Hospital Anxiety and Depression Scale as a Preoperative Screening Tool in Cervical Radiculopathy - Does it Predict Functional Outcome?
Speaker: M. Skeppholm
Authors: M. Skeppholm(1,2), M. Hammar(1), R. Fransson(1)
(1)Stockholm Spine Center, Stockholm, Sweden, (2)Karolinska Institute, Stockholm, Sweden

5:30 pm - 5:34 pm 455 ACADIA® Facet Replacement System: Experience from a High-enrolling Research Center at Two Years Postoperative
Speaker: A.D. Tahernia
Authors: A.D. Tahernia(1), K. Baker(2), J. Myer(2)
(1)Desert Orthopedic Center, Rancho Mirage, CA, United States, (2)Globus Medical, Audubon, PA, United States

5:35 pm - 5:39 pm 171 Pregnancy after Lumbar Total Disc Replacement
Speaker: J.E. Zigler
Authors: A.Owusu(1), J.E. Zigler(2), D.D. Ohnmeiss(1), R.D. Guyer(2)
(1)Texas Back Institute Research Foundation, Plano, TX, United States, (2)Texas Back Institute, Plano, TX, United States

5:40 pm - 5:44 pm 476 2-level Lumbar Total Disc Replacement with the Prodisc Prosthesis: 4-year Follow-up Study of Mobility and Functional Results
Speaker: S. Trincat
Authors: G. Edgard-Rosa(1), S. Trincat(2), G. Geneste(1), T. Marnay(1)
(1)Clinique du Parc, Centre de Chirurgie Vertébrale, Castelnau le Lez, France, (2)Clinique des Franciscaines, Chirurgie Orthopédique, Nîmes, France

5:45 pm - 5:49 pm 375 Patient-specific Templating for ADR Identifies Factors that Influence Clinical Outcomes
Speaker: C.M. Cain
Authors: C.M. Cain(1), J.F. Hollenbeck(2), J.A. Fattor(1), V. Patel(1), E. Burger-Van der Walt(1), P. Laz(2), P.J. Rullkoetter(2)
(1)University of Colorado Anschutz Medical Campus, Aurora, CO, United States, (2)University of Denver, Denver, CO, United States

5:50 pm - 6:00 pm Discussion

5:00 pm - 6:00 pm - Oral Posters: Spine Smorgasbord

Moderator(s): Choll Kim, MD, PhD

5:00 pm - 5:04 pm 468 Sagittal Misalignment Treated with Lateral Approach and Limited Posterior Correction
Speaker: L. Pimenta
Authors: R. Amaral(1), R. Jensen(1), L. Marchi(1), L. Pimenta(1,2)
444 Return to Golf after Lumbar Fusion
Speaker: K.U. Park
Authors: K.U. Park(1), M.D. Hellman(2), C.M. Mikhail(2), F.M. Phillips(2)
(1)Harvard, Orthopedics, Boston, MA, United States, (2)Rush University Medical Center, Orthopedics, Chicago, IL, United States

354 Long Term Patient-centered Clinical Outcomes of Lumbar Arthrodesis in Degenerative Disc Disease: A Systematic Review with Meta Analysis
Speaker: M. Finn
Authors: A. Noshchenko(1), E. Lindley(1), E. Burger(1), C. Cain(1), V. Patel(1)
(1)University of Colorado Anschutz Medical Campus, Aurora, CO, United States

355 Rates of Complications and Required Additional Surgical Interventions after Lumbar Arthrodesis versus Alternative Treatment in Lumbar Spondylosis: A Systematic Review with Meta Analysis
Speaker: V. Patel
Authors: A. Noshchenko(1), E. Lindley(1), E. Burger(1), C. Cain(1), V. Patel(1)
(1)University of Colorado Anschutz Medical Campus, Aurora, CO, United States

173 Comparison of Clinical Outcomes for Anterior vs. 360 Fusion at the Fusion Level of Lumbar Hybrid Surgery
Speaker: R.D. Guyer
Authors: E. Otero-Lopez(1), R.D. Guyer(2), D.D. Ohnmeiss(1), J.E. Zigler(2)
(1)Texas Back Institute Research Foundation, Plano, TX, United States, (2)Texas Back Institute, Plano, TX, United States

11 Preoperative Embolization vs. Local Hemostatic Agents in Operative Treatment of Hypervascular Spinal Tumors
Speaker: N. Zaborovskii
Authors: N. Zaborovskii(1), D. Ptashnikov(1), D. Mikhaylov(1), S. Masevnin(1)
(1)Vreden Russian Research Institute of Traumatology and Orthopedics, Spinal Surgery and Oncology, Saint-Petersburg, Russian Federation

502 Impact of Obesity on Complications and Patient-reported Outcomes in Adult Spinal Deformity Surgery
Speaker: E. Tanzi
Authors: A. Soroceanu(1), E. Tanzi(2), D. Burton(3), J. Smith(4), R. Hostin(5), C. Shaffrey(4), O. Boachie-Adjei(6), G. Mundis(7), V. Deviren(8), T. Errico(2), S. Bess(9), M. Gupta(10), R. Hart(11), F. Schwab(2), V. Lafage(2), International Spine Study Group (ISSG)
(1)University of Calgary, Orthopaedic Surgery, Alberta, AB, Canada, (2)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States, (3)University of Kansas Medical Center, Orthopaedic Surgery, Kansas City, KS, United States, (4)University of Virginia Medical Center, Neurosurgery, Charlottesville, VA, United States, (5)Baylor Scoliosis Center, Plano, TX, United States, (6)Hospital for Special Surgery, New York, NY, United States, (7)San Diego Center for Spinal Disorders, La Jolla, CA, United States, (8)University of California San Francisco, San Francisco, CA, United States, (9)Rocky Mountain Hospital for Children, Orthopaedic Surgery, Denver, CO, United States, (10)University of California Davis, Sacramento, CA, United States, (11)Oregon Health and Science University, Orthopaedic Surgery, Portland, OR, United States

493 Efficacy and Safety of Intrawound Vancomycin in Reducing Surgical Site Infection: A Meta-analysis
Speaker: T. Cheriyan
Authors: T. Cheriyan(1), R. Rattenni(1), V. Lafage(1), J. Goldstein(1), F. Schwab(1), T. Errico(1)
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States

413 Addressing Lumbar Degenerative Disc Disease: A Prospective Study on Stand-alone, Zero-profile ALIF Cages with Internal Anchoring Plates
Speaker: J. Delecin
(1)Hôpital Mondor Hospital, Creteil, France, (2)University Hospital, Nantes, France, (3)University Hospital, Dijon, France, (4)Retired, Paris, France, (5)Institut du Rachis, Creteil, France

410 The Diagnostic Value of MRI, CT, PET, Bone Scintigraphy (BS) and BS with SPECT (SPECT) in Detecting Vertebral Metastases
Speaker: T. Liu
Authors: T. Liu(1), H. Yang(1)
(1)The First Affiliated Hospital of Soochow University, Suzhou, China
Thursday, April 16, 2015

8:00 am - 8:30 am - General Session: Tumor, Trauma, and Infection

Moderator(s): Pierce Nunley, MD, Isador Lieberman, MD, MBA, FRCSC

8:00 am - 8:03 am 69 Postoperative Spine Dressing Changes Are Unnecessary: Our 15-year Experience with an Institutional Dressing Change Protocol
Speaker: S. Bains
Authors: L.K. Mitsunaga(1), S. Bains(1), N. Singh(1), K. Majid(1), R. Bains(1)
(1)Kaiser Oakland Medical Center, Department of Spine Surgery, Oakland, CA, United States

8:04 am - 8:07 am 383 Secondary Balloon Kyphoplasty for New Osteoporotic Vertebral Compression Fractures after Initial Balloon Kyphoplasty
Speaker: D. Song
Authors: B. Meng(1), D. Song(1), G. Chen(1), J. Niu(1), W. Jiang(1), H. Yang(1)
(1)The First Affiliated Hospital of Soochow University, Orthopedic, Suzhou, China

8:08 am - 8:11 am 486 Posterior Percutaneous Spinal Instrumentation Treatment Improves Clinical and Quality-of-Life Outcomes Compared with Standard Thoracolumbosacral Orthosis Rigid Bracing Treatment in Patients Affected by a Single Level Pyogenic Spondylodiscitis
Speaker: E. Pola
Authors: E. Pola(1), L.A. Nasto(1), D. Colangelo(1), G. Zirio(1), M. Genitiempo(1)
(1)Catholic University of Rome, Rome, Italy

8:12 am - 8:15 am 275 Association between Vertebral Fracture and Degenerative Changes in Adjacent Intervertebral Discs
Speaker: K. Akeda
Authors: N. Takegami(1), K. Akeda(1), K. Murata(1), J. Yamada(1), A. Sudo(1)
(1)Mie University Graduate School of Medicine, Department of Orthopedic Surgery, Tsu City, Japan

8:16 am - 8:19 am 220 Versatility of Percutaneous Pedicular Screw Fixation in Metastatic Spine Tumour Surgery: A Prospective Analysis
Speaker: N.S. Kumar
Authors: N.S. Kumar(1), A.S. Zaw(2), R. Reyes(2), P.H. Wu(2), R. Malhotra(2)
(1)National University Hospital, Orthopaedic Surgery, Singapore, Singapore, (2)National University Health System, Orthopaedic Surgery, Singapore, Singapore

8:20 am - 8:30 am Discussion

8:30 am - 10:10 am - Presidential Address

Presidential Address by Gunnar B.J. Andersson and presentation by Guest Speaker Prof Jiří Dvořák, MD.

10:10 am - 10:40 am - Break on Exhibit Floor

10:40 am - 11:50 pm - General Session: Cervical Degenerative

Moderator(s): Jack Zigler, MD, Rob Isaacs, MD

10:40 am - 10:44 am 329 Surgical Management of Cervical Myelopathy: An Analysis of Patient Characteristics, Surgical Procedures, Complication Rates and Risk Factors
Speaker: S. Vira
(1)NYU Hospital for Joint Diseases, Department of Orthopaedic Surgery, NYC, NY, United States, (2)Rothman Institute, Thomas Jefferson University, Department of Orthopedic Surgery, Philadelphia, PA, United States, (3)Duke University Medical Center, Department of Neurosurgery, Durham, NC, United States
10:45 am - 10:49 am
314 Predictors of Two-year Surgical Outcomes of Patients with Cervical Myelopathy: An Analysis of 203 Patients
Speaker: S. Vira
(1) NYU Hospital for Joint Diseases, Department of Orthopaedic Surgery, NYC, NY, United States, (2) Dartmouth Medical School, Department of Orthopaedic Surgery, Lebanon, NH, United States, (3) Rothman Institute, Thomas Jefferson University, Department of Orthopedic Surgery, Philadelphia, PA, United States, (4) Duke University Medical Center, Department of Neurosurgery, Durham, NC, United States, (5) PhDX Systems, Albuquerque, NM, United States

10:50 am - 10:54 am
469 Impact of Cervical Spondylotic Myelopathy on General Health Compared to Different Diseases and United States Norms
Speaker: V. Lafage
Authors: V. Lafage(1), R. Lafage(2), S. Liu(2), J. Smith(3), T. Protopsaltis(2), V. Challier(2), C. Shaffrey(4), H.J. Kim(5), P. Arnold(6), J. Chapman(7), F.J. Schwab(2), E. Massicotte(8), S. Yoon(9), M. Fehlings(8), C. Ames(10)
(1) New York University Langone Medical Center, Orthopaedic Surgery, New York, NY, United States, (2) New York University Langone Medical Center, Department of Orthopedic Surgery, New York, NY, United States, (3) University of Virginia Medical Center, Neurosurgery, Charlottesville, VA, United States, (4) University of Virginia, Charlottesville, VA, United States, (5) Hospital for Special Surgery, New York, NY, United States, (6) University of Kansas, Kansas City, KS, United States, (7) University of Washington, Seattle, WA, United States, (8) University of Toronto, Toronto, ON, Canada, (9) Emory University, Georgia, GA, United States, (10) University of San Francisco, San Francisco, CA, United States

10:55 am - 10:59 am
579 Motor and Sensory Function in Cervical Myelopathy – Do They Recover at the Same Rate?
Speaker: S. Goncalves
Authors: S. Goncalves(1,2), R. Bartha(2), T. Stevens(3), N. Duggal(1,2), Cervical Myelopathy Patient Group
(1) London Health Sciences Centre, University Hospital, London, ON, Canada, (2) Western University, Medical Biophysics, London, ON, Canada, (3) London Health Sciences Centre, Victoria Hospital, London, ON, Canada

11:00 am - 11:04 am
333 The Impact of Obesity on Surgical Outcomes, Costs, and Reimbursements Following an Anterior Cervical Discectomy and Fusion
Speaker: J. Ahn
Authors: S.V. Nandyala(1), A. Marquez-Lara(1), I. Elboghdady(1), A. Naqvi(1), J. Ahn(1), K. Singh(1)
(1) Rush University Medical Center, Orthopedics, Spine Surgery, Chicago, IL, United States

11:05 am - 11:14 am
Discussion

11:15 am - 11:19 am
337 Two-year Survival Comparison between Stand-alone and Anterior Plated Anterior Cervical Discectomy and Fusion
Speaker: K. Singh
Authors: A. Marquez-Lara(1), S.V. Nandyala(1), K. Aboushaala(1), J. Ahn(1), A. Naqvi(1), K. Singh(1)
(1) Rush University Medical Center, Orthopaedics, Spine Surgery, Chicago, IL, United States

11:20 am - 11:24 am
562 Anterior Cervical Discectomy and Fusion (ACDF): Comparison between Zero Profile Implants and Anterior Cervical Plate and Spacer
Speaker: M. Alimi
Authors: M. Alimi(1), I. Njoku(1), C.P. Hofstetter(1), K. Kesavabhotla(1), A.J. Tsiouris(2), J. Boockvar(1), R. Hartl(1)
(1) Weill Cornell Brain and Spine Center, New York, New York, NY, United States, (2) Weill Cornell Medical College, Department of Neuroradiology, New York, NY, United States

11:25 am - 11:29 am
374 Indirect Posterior Cervical Decompression and Fusion Using Expandable Facet Joint Implant for Single Level Radiculopathy - Results in 53 Patients at 2-years
Speaker: B. McCormack
Authors: B. McCormack(1), F. Phillips(2), M. Tyrakowski(3), K. Siemionow(3)
(1) Neurospine Institute Medical, San Francisco, CA, United States, (2) Rush University Medical Center, Chicago, IL, United States, (3) University of Illinois at Chicago, Chicago, IL, United States

11:30 am - 11:34 am
210 Prospective Study on Serum Metal Levels up to 84 Months after Surgery in Patients with Metal-on-Metal Cervical Disc Arthroplasty
Speaker: V. Singh
Authors: M.F. Gornet(1), F.W. Schranck(2), V. Singh(3), A.K. Skipor(4), J.J. Jacobs(4)
(1) The Orthopedic Center of St. Louis, Spine Research Center, St. Louis, MO, United States, (2) SPIRITT Research, St. Louis, MO, United States, (3) Medtronic Spine, Memphis, TN, United States, (4) Rush University Medical Center, Department of Orthopaedic Surgery, Chicago, IL, United States
11:35 am - 11:39 am  563 Importance of Avoiding an Anterior Center of Rotation with Cervical Disc Arthroplasty
Speaker: J.A. Hipp
Authors: M.F. Gornet(1), K. Wymore(2), F.W. Schranck(3), N.D. Wharton(4), J.A. Hipp(4)
(1)The Orthopedic Center of St. Louis, Spine Research Center, St. Louis, MO, United States, (2)University of Missouri, School of Medicine, Columbia, MO, United States, (3)SPIRITT Research, St. Louis, MO, United States, (4)Medical Metrics, Inc., Houston, TX, United States

11:40 am - 11:50 am  Discussion

12:00 pm - 1:30 pm - Industry Workshops (Not CME)

1:30 pm - 2:30 pm - Symposium: Point Counterpoint

Moderator(s): Matthew Scott-Young, MBBS FRACS FAOrthA

1:30 pm - 1:39 pm  Kyphosis Correction
Anterior-Lateral Release - Frank Philips, MD
Pedicle Subtraction Osteotomy - Sig Berven, MD

1:40 pm - 1:44 pm  Discussion

1:45 pm - 1:54 pm  Cervical TDR: Do they decrease adjacent level disease?
Decrease Adjacent Level Disease and Re-Operations - Domagoj Coric, MD
Outcomes Do Not Justify the Added Cost - Pierce Nunley, MD

1:55 pm - 1:59 pm  Discussion

2:00 pm - 2:09 pm  Intraoperative Spinal Navigation
Safe and Cost-Effective - Isador Lieberman, MD, MBA, FRCSC
Waste of Time and Money - Robert Issacs, MD

2:10 pm - 2:14 pm  Discussion

2:15 pm - 2:24 pm  Minimally Invasive Spine Surgery
Can’t Live without it: The Proven Technique - Kern Singh, MD
It’s All Hype and Marketing - Michael Ogon, MD

2:25 pm - 2:30 pm  Discussion

2:30 pm - 3:00 pm - General Session: Biologics

Moderator(s): Stephen Hochschuler, MD and Ashish Diwan, MD, PhD

2:30 pm - 2:33 pm  567 Mesenchymal Stem Cell Allograft as a Fusion Adjunct in One and Two Level Anterior Cervical Discectomy and Fusion: A Matched Cohort Analysis
Speaker: S. McAnany
Authors: S. McAnany(1), M. Noureldin(2), I. Elboghdady(2), A. Marquez-Lara(2), N. Ashraf(3), B. Skovrlj(3), S. Overley(1), K. Singh(2), S. Qureshi(3)
(1)The Mount Sinai Medical Center, New York, NY, United States, (2)Rush University Medical Center, Chicago, IL, United States, (3)Mount Sinai Medical Center, New York, NY, United States

2:34 pm - 2:37 pm  250 Chemokine Receptor Antagonists Can Inhibit Macrophage Migration Induced by Annulus fibrosus and Nucleus pulposus Cells
Speaker: A.V. Chee
Authors: P. Shi(1), A.V. Chee(1), D.K. Liu(1), D. Chen(2), Z. Li(3), C. Oh(4), D. Chen(4), G.B. Andersson(1), H.S. An(1)
(1)Rush University Medical Center, Orthopedic Surgery, Chicago, IL, United States, (2)Xiangya Hospital of Central South University, Orthopedics, Changsha, China, (3)First Affiliated Hospital of Sun Yat-Sen Orthopedics, Guangzhou, China, (4)Rush University Medical Center, Biochemistry, Chicago, IL, United States

2:38 pm - 2:41 pm  439 Medical Marijuana Use Characteristics in Patients with Chronic Spine Pain Disorders
Speaker: M. Finn
Authors: E.M. Lindley(1), D. Razavi-Shearer(1), V. Patel(1), E. Burger(1), C. Cain(1), M. Finn(1)
(1)University of Colorado Anschutz Medical Campus, Aurora, CO, United States

2:42 pm - 2:45 pm  67 Bone Morphogenetic Protein (BMP-2) Usage and Cancer Correlation: An Analysis of 10,416
Spine Fusion Patients from a Multi-center Spine Registry
Speaker: R. Bains
Authors: R. Bains(1), L.K. Mitsunaga(2), Y. Chen(2), K. Majid(1), K. Guppy(3), J. Harris(2), J. Alvarez(2), L. Paxton(2)
(1)Kaiser Oakland Medical Center, Department of Spine Surgery, Oakland, CA, United States, (2)Kaiser Permanente, Surgical Outcomes & Analysis, San Diego, CA, United States, (3)Kaiser Permanente, Department of Neurosurgery, Sacramento, CA, United States

2:46 pm - 2:49 pm 203 In vivo Total Disc Replacement Using Tissue-engineered Intervertebral Discs in the Canine Model
Speaker: Y. Moriguchi
Authors: Y. Moriguchi(1), R. Navarro(1), P. Grunert(1), J.M. Santiago(2), T. Khair(1), L.J. Bonassar(2,3), R. Hartl(1)
(1)Weill Cornell Medical College, Neurological Department, New York, NY, United States, (2)Cornell University, Department of Biomedical Engineering, Ithaca, NY, United States, (3)Cornell University, Sibley School of Mechanical and Aerospace Engineering, Ithaca, NY, United States

2:50 pm - 3:00 pm Discussion

3:00 pm - 3:30 pm - Awards Ceremony/Transfer of Presidency

3:30 pm - 4:00 pm - Break on Exhibit Floor

4:00 pm - 5:10 pm - General Session: Motion

Moderator(s): Thierry Marnay, MD, Hyuan Bae, MD, Rolando Garcia, MD

4:00 pm - 4:04 pm 429 Heterotopic Ossification and Endplate Sizing in One-level CDA Patients: Patient Outcomes from a Randomized, Prospective, Clinical Trial
Speaker: P.D. Nunley
Authors: P.D. Nunley(1), D.A. Cavanaugh(1), E.J. Kerr III(1), A. Utter(1), M. Stone(1)
(1)Spine Institute of Louisiana, Shreveport, LA, United States

4:05 pm - 4:09 pm 169 One-level Treatment with Total Disc Replacement and ACDF: Results from an FDA IDE Clinical Trial through 60 Months
Speaker: M.S. Hisey
(1)Texas Back Institute, Denton, TX, United States, (2)Spine Institute Center at St. John's Health Center, Santa Monica, CA, United States, (3)GBMC Healthcare Greater Baltimore Neurosurgical Associates, Baltimore, MD, United States, (4)Oklahoma Spine & Brain Institute, Tulsa, OK, United States, (5)Orthopedic North East, Fort Wayne, IN, United States, (6)University of California Davis Medical Center, Sacramento, CA, United States, (7)Spine Institute of Louisiana, Shreveport, LA, United States, (8)Neurological Specialists of Austin, Austin, TX, United States, (9)Texas Back Institute, Plano, TX, United States

4:10 pm - 4:14 pm 470 Comparing Adjacent Level Changes Adjacent in ACDF versus Cervical Disc Arthroplasty
Speaker: J.A. Hipp
Authors: J.A. Hipp(1), E.F. Chan(1), N.S. Akella(1)
(1)Medical Metrics, Inc., Houston, TX, United States

4:15 pm - 4:19 pm 271 Cervical Disc Arthroplasty vs. Anterior Cervical Discectomy and Fusion: Seven-year Outcomes from a Prospective, Multicenter Investigational Device Exemption Study
Speaker: T. Lanman
Authors: M.F. Gornet(1), J.K. Burkus(2), M.E. Shaffrey(3), P.J. Argires(4)
(1)The Orthopedic Center of St. Louis, Spine Research Center, Saint Louis, MO, United States, (2)Wilderness Spine Services, The Hughston Clinic, Columbus, GA, United States, (3)University of Virginia, Department of Neurosurgery, Charlottesville, VA, United States, (4)Brain Orthopedic Spine Specialists, Lancaster, PA, United States

4:20 pm - 4:24 pm 542 Five-year Results of Cervical Total Disc Replacement Compared with Anterior Discectomy and Fusion for Treatment of 2-level Symptomatic Degenerative Disc Disease: A Prospective, Randomized, Controlled, Multicenter FDA IDE Clinical Trial
Speaker: D. Coric
Authors: K. Radcliff(1), D. Coric(2), T. Albert(3)
(1)Rothman Institute, Thomas Jefferson University, Egg Harbor, NJ, United States, (2)Carolina Neurosurgery and Spine Associates, Charlotte, NC, United States, (3)Hospital for Special Surgery, New York, NY, United States
Prospective Clinical Results of Cervical Arthroplasty with the DCI Device: One Year Result
Speaker: A.P. Fabrizi
Authors: A.P. Fabrizi(1,2), L. Schiabello(1,2), M. Giovannini2, M. Bufano(1,2), P. Alvisi(1,2)
(1)Villa Maria Hospital, Neurosurgery, Torino, Italy, (2)San Pier Damiano Hospital, Spine Surgery, Faenza, Italy

Clinical Outcomes after Treatment with Disc Prostheses in Three Lumbar Segments Compared to One- or Two Segments
Speaker: S. Berg
Authors: S. Berg(1), N. Gillberg-Aronsson(2)
(1)Karolinska Institute, Spine Center, Upplands Väsby, Sweden, (2)Karolinska Institute, Medical School, Stockholm, Sweden

Three Year Results of the Prospective Randomized Multicenter FDA IDE Clinical Trial Comparing the Activ-L® to Prodisc-L and Charite Disc Replacement Prostheses
Speaker: J.J. Yue
Authors: J.J. Yue(1), R. Garcia(2)
(1)Yale University School of Medicine, Orthopaedic Surgery, New Haven, CT, United States, (2)Orthopaedic Care Center, Aventura, FL, United States

Decompression and Implantation of an Interlaminar Stabilization Implant for the Treatment of Lumbar Spinal Stenosis with Back Pain: Four Year Outcomes from a Level 1 US IDE Study
Speaker: R.J. Davis
Authors: R.J. Davis(1), H.W. Bae(2), T.J. Errico(3), C. Laurysen(4), S.P. Leary(5)
(1)Greater Baltimore Medical Center, Neurosurgery, Baltimore, MD, United States, (2)Cedars-Sinai Medical Center, Orthopedic Spine Surgery, Santa Monica, CA, United States, (3)New York University Langone Medical Center, Spine Surgery, New York, NY, United States, (4)Olympia Medical Center, Spine Neurosurgery, Los Angeles, CA, United States, (5)Alvarado Hospital, Neurosurgery, San Diego, CA, United States

Extended Clinical Experience with Facet Arthroplasty: Two and Five Year Preliminary Outcomes from the ACADIA® IDE Study
Speaker: J. Youssef
(1)Spine Colorado, Durango, CO, United States, (2)Desert Orthopedic Center, Rancho Mirage, CA, United States, (3)Spine Group Beverly Hills, Los Angeles, CA, United States, (4)Rubin Institute for Advanced Orthopaedics, Baltimore, MD, United States, (5)Globus Medical, Audubon, PA, United States

Case Studies Spine Talks
The challenges of life in the 21st Century require us to find new ways to access the wisdom and intelligence inherent in groups both small and large. The need for collaboration, insight and coordinated action has never been greater. ISASS15 will continue and expand on past successes with featured events developed by leaders in the spine industry.

Room 1 - Deformity Correction with MIS Techniques
Moderator(s): Juan Uribe, MD

Room 2 - Treatment of L4-5 degenerative Spondylolisthesis
Moderators(s): Vikas Patel, MD

The Spine Talk is an intensive round table discussion program that presents a series of challenging case studies and allows participants to confer on treatment options and protocols.

Device demonstration tables will be added to expand the Spine Talks program content. A tabletop for each participating device company will be available for hands-on product display. Surgeons will visit each tabletop for a specific period of time and rotate to the following table. The devices will remain in the room for the Spine Talk session while related cases are discussed.
Participants must select either "Deformity Correction with MIS Techniques" or "Treatment of L4-5 degenerative Spondylolisthesis" cases to review.

After rounds of discussion, the groups will gather to share and explore emerging outcomes, insights and new knowledge. By cross-pollinating ideas and sharing thoughts, collective discoveries and outcomes will be developed that will be meaningful to case outcomes.

Friday, April 17, 2015
8:00 am - 9:05 am - General Session: Biomechanics

Moderator(s): Lisa Ferrara, PhD, Boyle Cheng, PhD

8:00 am - 8:04 am 264 Does Cervical Sagittal Imbalance Increase Risk of Adjacent Segment Disease After Multilevel Fusion?
Speaker: A.G. Patwardhan
Authors: A.G. Patwardhan(1,2), S. Khayatzadeh(2), N.-L. Nguyen(1), R.M. Havey(1,2), L.I. Leonard(1,2), M. Muriuki(2), A.J. Ghanayem(1), A.A. Patel(3), Z.A. Smith(4), W. Sears(5)
(1)Loyola University Chicago, Orthopaedic Surgery and Rehabilitation, Maywood, IL, United States,
(2)Edward Hines Jr. VA Hospital, Musculoskeletal Biomechanics Laboratory, Hines, IL, United States,
(3)Northwestern Feinberg School of Medicine, Orthopaedic Surgery, Chicago, IL, United States,
(4)Northwestern Feinberg School of Medicine, Neurosurgery, Chicago, IL, United States,
(5)Wentworth Spine Clinic, Sydney, NSW, Australia

8:05 am - 8:09 am 362 Intervertebral Kinematics Correlate with T2 Relaxation Times in the Lower Human Cervical Spine
Speaker: T.D. Cha
Authors: S.J. Driscoll(1), S. Wang(1), W. Zhong(1), M. Torriani(1), K.B. Wood(1), G. Li(1), T.D. Cha(1)
(1)Massachusetts General Hospital, Orthopaedic Surgery, Boston, MA, United States

8:10 am - 8:14 am 285 Does Magnitude of Disc Space Distraction Affect Postoperative Motion after Total Disc Replacement with Compressible Prosthesis?
Speaker: A.G. Patwardhan
Authors: A.G. Patwardhan(1,2), G. Carandang(2), L.I. Voronov(1,2), R.M. Havey(1,2), C. Lauryssen(3), D. Coric(4), T. Dimmig(5), D. Musante(5)
(1)Loyola University Chicago, Orthopaedic Surgery and Rehabilitation, Maywood, IL, United States,
(2)Edward Hines Jr. VA Hospital, Musculoskeletal Biomechanics Laboratory, Hines, IL, United States,

8:15 am - 8:19 am 291 Developing Normative Values for a Quantifiable, Clinically Applicable Method to Evaluate Lumbar Instability
Speaker: J. Zigler
Authors: J. Hipp(1), R.D. Guyer(2), D.D. Ohnmeiss(3), J. Zigler(2)
(1)Medical Metrics, Inc., Houston, TX, United States, (2)Texas Back Institute, Plano, TX, United States, (3)Texas Back Institute Research Foundation, Plano, TX, United States

8:20 am - 8:24 am 224 Subsidence Following Dynamic Loading of Intervertebral Devices
Speaker: A. Valdevit
Authors: A. Valdevit(1), P.F. Ullrich(2), M.B. Gallagher(3), J.M. Schneider(3)
(1)Stevens Institute of Technology, Chemistry, Chemical Biology and Biomedical Engineering, Hoboken, NJ, United States, (2)Neurospine Center of Wisconsin, Appleton, WI, United States, (3)Titan Spine, LLC, Mequon, WI, United States

8:25 am - 8:34 am Discussion

8:35 am - 8:39 am 265 Muscle Activity Costs of Cervical Sagittal Imbalance
Speaker: S. Khayatzadeh
Authors: S. Khayatzadeh(1), R.M. Havey(1,2), M. Muriuki(1), D. Schuit(3), L.I. Voronov(1,2), A.J. Ghanayem(2), A.G. Patwardhan(1,2)
(1)Edward Hines Jr. VA Hospital, Musculoskeletal Biomechanics Laboratory, Hines, IL, United States,
(2)Loyola University Chicago, Orthopaedic Surgery and Rehabilitation, Maywood, IL, United States,
(3)Governors State University, Physical Therapy, University Park, IL, United States

8:40 am - 8:44 am 155 Progressively Increased Mechanical Burden on Adjacent Levels after 1-, 2-, and 3-Level Fusions in the Lumbar Spine
Speaker: W. Sears
Speaker: M. Korkmaz
Authors: M. Korkmaz(1), T. Akgul(2), O. Ozkunt(3), K. Sariyilmaz(3), F. Dikici(3), O. Yazicioglu(2)
(1) Ministry of Health Istanbul Sisli Hamidiye Etfal Training and Research Hospital, Orthopedics and Traumatology, Istanbul, Turkey, (2) Istanbul University Istanbul Faculty of Medicine, Orthopedics and Traumatology, Istanbul, Turkey, (3) Acibadem University, Orthopedics and Traumatology, Istanbul, Turkey

8:50 am - 8:54 am  251 Quantitative Thoracic Volume Modeling of Growing Spine Interventions: Pilot Case Study
Speaker: D. Matson
Authors: C.G.T. Ledonio(1), D.W. Polly(1), B. Akbarnia(2), K. England(1), J. Pawelek(3)
(1) University of Minnesota, Department of Orthpaedic Surgery, Minneapolis, MN, United States, (2) University of California, San Diego, Orthopaedic Surgery, San Diego, CA, United States, (3) San Diego Center for Spinal Disorders, San Diego, CA, United States

8:55 am - 9:05 am  Discussion

9:05 am - 10:05 am - Symposium: Spine in the Out-Patient Surgery Center (ASC). The Future?
Moderator(s): Frank Phillips, MD

9:05 am - 9:17 am  Why ASCs are Better for Spine Surgery - John Peloza, MD

9:18 am - 9:28 am  Multi-Modal Anaesthesia for Out-Patient Spine Surgery - Asokumar Buvanendran, MD

9:29 am - 9:41 am  Economics of Out-Patient Spine Surgery - Richard Kube, MD

9:42 am - 9:54 am  ASC: Challenges in the Future - Barton C. Walker

9:55 am - 10:05 am  Discussion

10:05 am - 10:30 am - Break on Exhibit Floor

10:30 am - 11:50 pm - General Session: Cervical
Moderator(s): Gunnar B.J. Andersson, MD, PhD, Luiz Pimenta, MD, PhD

10:30 am - 10:35 am  500 Correlation between Chin Brow Vertical Angle, Slope of Line of Sight, and McGregor’s Slope for Cervical Disability
Speaker: R. Lafage
Authors: R. Lafage(1), B.G. Diebo(1), V. Challier(1), E. Ferrero(1), B. Liabaud(1), S. Liu(1), T. Protopsaltis(1), T. Errico(1), F.J. Schwab(1), V. Lafage(1), ISSG
(1) New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States

10:36 am - 10:41 am  266 Analysis of Post-operative Clinical Outcome between Patients with and without History of Prior Cervical Spine Surgery - a Multicenter Study of 1313 Patients of 2-year Follow-up from the Association for Collaborative Spinal Research
Speaker: C.M. Jalai
(1) Rothman Institute, Thomas Jefferson University, Department of Orthopedic Surgery, Philadelphia, PA, United States, (2) NYU Hospital for Joint Diseases, Department of Orthopaedic Surgery, NYC, NY, United States, (3) Duke University Medical Center, Department of Neurosurgery, Durham, NC, United States, (4) Thomas Jefferson University Hospital and the Rothman Institute, Department of Orthopaedic Surgery, Philadelphia, PA, United States

10:42 am - 10:47 am  227 Cervical Spondylotic Myelopathy: National Trends in the Presentation, Treatment and Peri-operative Outcomes over 10 Years
Speaker: A.E. Macagno
Authors: P.G. Passias(1), B.J. Marascalchi(1), A.E. Macagno(1), C.M. Jalai(1), N.J. Worley(1), N. Bianco(1), M.C. Gerling(1), J.A. Bendo(1)
(1) NYU Hospital for Joint Diseases, Department of Orthopaedic Surgery, NYC, NY, United States
Healthcare Resource Utilization in Patients Undergoing Anterior Cervical Decompression and Fusion for Radiculopathy Compared to Total Joint Arthroplasty for Osteoarthritis – the Value Perspective in the Pre- and Perioperative Period
Speaker: S. Khan
Authors: S. Khan(1), F. Phillips(2)
(1)Ohio State University, Orthopaedics, Columbus, OH, United States, (2)Rush University Medical Center, Chicago, IL, United States

Endplate Coverage and Heterotopic Ossification in Two-level CDA Patients from an FDA IDE Randomized, Prospective, Clinical Trial
Speaker: P.D. Nunley
Authors: P.D. Nunley(1), D.A. Cavanaugh(1), A. Utter(1), E.J. Kerr III(1), M. Stone(1)
(1)Spine Institute of Louisiana, Shreveport, LA, United States

Seven-year Survivorship Analysis: Late-term Complications and Revisions Following PCM® Cervical Disc Arthroplasty or Anterior Cervical Discectomy and Fusion
Speaker: F.M. Phillips
Authors: F.M. Phillips(1), P.C. McAfee(2), F.H. Geisler(3)
(1)Rush University Medical Center, Midwest Orthopaedics, Chicago, IL, United States, (2)University of Maryland St. Joseph Medical Center, Towson, MD, United States, (3)The Chicago Back Institute, Chicago, IL, United States

Long Term Experience with Cervical Arthroplasty: Six and Seven Year Outcomes from the SECURE®-C Cervical Artificial Disc Study
Speaker: W. Beutler

Randomized Controlled Trial between Two Different Cervical Disc Arthroplasty Implants – Two Year Follow-up
Speaker: A.J. Berg
Authors: A.J. Berg(1,2), M.-C. Killen(1), J. Tankel(3), S. Khan(1), G. Reddy(1), T. Friesem(1)
(1)University Hospital of North Tees, Spinal Unit, Stockton-on-Tees, United Kingdom, (2)The Pennine Acute Hospitals NHS Trust (LET), Manchester, United Kingdom, (3)Luton and Dunstable University Hospital, Luton, United Kingdom

A Randomized Controlled Trial Comparing Artificial Disc Replacement to Fusion in Cervical Radiculopathy – Is there more to Discover?
Speaker: M. Skeppholm
Authors: M. Skeppholm(1,2), T. Henriques(2), L. Vavruch(3), H. Löfgren(3), C. Olerud(4)
(1)Karolinska Institute, Dep. of Molecular Medicine and Surgery, Stockholm, Sweden, (2)Stockholm Spine Center, Upplands Väsby, Sweden, (3)Neuro-Orthopedic Center, Jönköping, Sweden, (4)Uppsala University, Dep. of Surgical Sciences, Uppsala, Sweden

Overall Success Maintenance in Cervical Disc Arthroplasty and ACDF Patients at One and Two Levels: Results from an FDA IDE Clinical Trial at Two and Five Years
Speaker: R.J. Davis
Authors: R.J. Davis(1), M.S. Hisey(2), H.W. Bae(3), K.D. Kim(4), P.D. Nunley(5)
(1)Greater Baltimore Neurosurgical Associates, Towson, MD, United States, (2)Texas Back Institute, Denton, TX, United States, (3)Cedars Sinai Medical Center, Sacramento, CA, United States, (4)University of California Davis Medical Center, Davis, CA, United States, (5)Spine Institute of Louisiana, Shreveport, LA, United States

Discussion

12:00 pm - 1:00 pm - Lunch Break

1:00 pm - 2:28 pm - General Session: Lighting Round

Moderator(s): Jim Youssef, MD, Donna Ohnmeiss, PhD
1:00 pm - 1:02 pm  79  Cervical Hybrid TDR/ACDF vs Multi-level ACDF Outcomes  
Speaker: G.R. Buttermann  
Authors: G.R. Buttermann(1)  
(1)Midwest Spine Institute, Stillwater, MN, United States

1:03 pm - 1:05 pm  42  Subsidence in Single Level Cervical Disc Arthroplasty  
Speaker: A.J. Berg  
Authors: A.J. Berg(1,2), M.-C. Killen(1), S. Khan(1), G. Reddy(1), T. Friesem(1)  
(1)University Hospital of North Tees, Spinal Unit, Stockton-on-Tees, United Kingdom, (2)Pennine Acute Hospitals NHS Trust (LET), Manchester, United Kingdom

1:06 pm - 1:08 pm  350  Preoperative Coagulation Profile Testing to Predict Blood Loss in Complex Spine Surgery: Identifying the Patient at Risk  
Speaker: C. Cain  
Authors: E. Burger(1), D. Illing(1), D. Razavi-Shearer(1), N. Weitzel(1), E. Lindley(1), C. Kleck(1), C. Cain(1), L. Jameson(1), V. Patel(1)  
(1)University of Colorado Anschutz Medical Campus, Aurora, CO, United States

1:09 pm - 1:11 pm  53  Surgery in Pott’s Disease-experiences of 582 Cases  
Speaker: M.S. Alam  
Authors: M.S. Alam(1), M.R. Karim(1), M.S. Islam(2), S.A. Jonayed(1), H. Khalid(3), S. Chakraborty(4), T.N. Alam(5)  
(1)National Institute of Traumatology & Orthopaedic Rehabilitation (NITOR), Spine & Orthopaedic Surgery, Dhaka, Bangladesh, (2)HFRCMCH, Spine & Orthopaedic Surgery, Dhaka, Bangladesh, (3)Bangladesh Medical College & Hospital, Orthopaedic Surgery, Dhaka, Bangladesh, (4)Govt. of the People’s Republic of Bangladesh, Medical Officer, Dhaka, Bangladesh, (5)Bangladesh Medical College & Hospital, Medical Officer, Dhaka, Bangladesh

1:12 pm - 1:21 pm  Discussion

1:22 pm - 1:24 pm  154  Patterns of Healthcare Resource Utilization Prior to Anterior Cervical Decompression and Fusion in Patients with Radiculopathy: A Time to Shift the Clinical Equipoise?  
Speaker: S. Khan  
Authors: S. Khan(1), F. Phillips(2)  
(1)The Ohio State University, Columbus, OH, United States, (2)Rush University Medical Center, Chicago, IL, United States

1:25 pm - 1:27 pm  452  The Effects of Cage Size on Motor and Sensory Nerve Function during the XLIF® Procedure: Preliminary Results from a Prospective, Multi-center Study  
Speaker: J.S. Uribe  
Authors: J.S. Uribe(1), J.A. Yousseff(2), R.E. Isaacs(3), SOLAS Degenerative Study Group  
(1)University of South Florida, Tampa, FL, United States, (2)Spine Colorado, Durango, CO, United States, (3)Duke University Medical Center, Durham, NC, United States

1:28 pm - 1:30 pm  339  C-arm Positioning Is a Significant Source of Unnecessary Radiation Exposure  
Speaker: R.E. Isaacs  
Authors: E. Reiser(1), S. Byrd(1), R.E. Isaacs(1), C. Idler(2), K. Radcliff(3), F.M. Phillips(4)  
(1)Duke University Medical Center, Neurosurgery, Durham, NC, United States, (2)Duke Raleigh Hospital, Orthopedics, Raleigh, NC, United States, (3)Rothman Institute, Thomas Jefferson University, Orthopedics, Philadelphia, PA, United States, (4)Rush University Medical Center, Orthopedics, Chicago, IL, United States

1:31 pm - 1:33 pm  525  Meta-regression Analysis of the Effect of Tranexamic Acid Dosage on Blood Loss in Spine Surgery  
Speaker: M. Spiegel  
Authors: M. Spiegel(1), T. Cheriyan(1), A. Lee(1), V. Lafage(1), F. Schwab(1), J. Goldstein(1), T. Errico(1)  
(1)New York University Langone Medical Center, Department of Orthopaedic Surgery, New York, NY, United States

1:34 pm - 1:43 pm  Discussion

1:44 pm - 1:46 pm  317  Early Results of Magnetically Controlled Growing Rods in the Management of Early Onset Scoliosis  
Speaker: G. La Rosa  
Authors: G. La Rosa(1), L. Ruzzini(1), L. Oggiano(1)  
(1)Bambino Gesù’ Children’s Hospital, Palidoro (Fiumicino), Italy

1:47 pm - 1:49 pm  52  When Would a Spine Surgeon Have Surgery for a Herniated Disc?  
Speaker: G. Tepper  
Authors: R.D. Guyer(1), E. Putney(2), A. Carl(3), G. Tepper(4), D.D. Ohnmeiss(2)  
(1)Texas Back Institute, Plano, TX, United States, (2)Texas Back Institute Research Foundation, Plano,
1:50 pm - 1:52 pm 86 Are there Findings on Base-line Variables or MRI Prior to Surgery for Lumbar Disc Herniation that Can Predict Future Progression of Disc Degeneration and Possibly Chronic Low Back Pain due to Degenerative Disc Disease?
Speaker: S. Berg
Authors: S. Berg(1), O. Solmell(2), P. Dahlemar Sterner(2)
(1)Karolinska Institute, Stockholm Spine Center, Upplands Väsby, Sweden, (2)Lund University, Medical School, Lund, Sweden

1:53 pm - 1:55 pm 229 The Role of Intraoperative Cell Salvage in Metastatic Spine Tumour Surgery
Speaker: N.S. Kumar
Authors: N.S. Kumar(1), A.S. Zaw(2), Q. Ahmed(3), V. Lee(3), H.-K. Wong(2)
(1)National University Hospital, Orthopaedic Surgery, Singapore, Singapore, (2)National University Health System, Orthopaedic Surgery, Singapore, Singapore, (3)National University Hospital, Pathology, Singapore, Singapore

1:56 pm - 2:05 pm Discussion

2:06 pm - 2:08 pm 433 Early Readmissions Following Lumbar Discectomy with and without Anular Closure: Interim Data from an RCT
Speaker: J. Kienzler
Authors: J. Kienzler(1), G. Lesage(2), R. Hes(3), P.D. Klassen(4), Anular Closure RCT Study Group
(1)Kantonsspital Aarau AG, Neurosurgery, Aarau, Switzerland, (2)OLV Ziekenhuis, Neurosurgery, Aalst, Belgium, (3)AZ Klina, Neurosurgery, Antwerp, Belgium, (4)St. Bonifatius Hospital, Lingen, Germany

2:09 pm - 2:11 pm 278 Nucleoplasty with a Injectable Nucleus Replacement for Herniated Lumbar Disc: A Multicenter Study with a Minimum Five-year Follow-up
Speaker: U. Berlemann
Authors: U. Berlemann(1), O. Schwarzenbach(1), S. Hoppe(1,2), A. Diwan(3), S. Kitchel(4), D. Coric(5)
(1)The Spine Center, Thun, Switzerland, (2)Inselspital, Orthopaedic Surgery and Traumatology, Bern, Switzerland, (3)St. Georg Hospital, Sidney, NSW, Australia, (4)Orthopedic Spine Associates, Eugene, OR, United States, (5)Neurosurgery and Spine Associates, Charlotte, NC, United States

2:12 pm - 2:14 pm 205 Thoracic Volume Modeling of Growing Spine Interventions in Early Onset Scoliosis
Speaker: D. Matson
Authors: D. Matson(1), C.G.T. Ledonio(1), D. Polly(1), K. England(1), J. Pawelek(2), B. Akbarnia(3,4)
(1)University of Minnesota, Department of Orthopaedic Surgery, Minneapolis, MN, United States, (2)San Diego Center for Spinal Disorders, San Diego, CA, United States, (3)Medical Director, San Diego Center for Spinal Disorders, San Diego, CA, United States, (4)University of California, San Diego, CA, United States

2:15 pm - 2:17 pm 71 Adjacent Segment Disease after Sacroiliac Joint Fusion? Finite Element Analysis of a Minimally Invasive Fusion Procedure
Speaker: D.P. Lindsey
Authors: D.P. Lindsey(1), A. Kiapour(2), S.A. Yerby(1), V. Goel(2)
(1)SI-BONE, Inc., San Jose, CA, United States, (2)Engineering Center for Orthopaedic Research Excellence (E-CORE), Toledo, OH, United States

2:18 pm - 2:28 pm Discussion

2:28 pm - 3:38 pm - General Session: Clinical and Basic Science

Moderator(s): Hansen Yuan, MD, William Sears, MD

2:28 pm - 2:32 pm 253 The Use of Motor Evoked Potentials to Detect Neurologic Injury during Lateral Interbody Fusion
Speaker: Y.-P. Lee
(1)UCSD Medical Center, Orthopaedic Surgery, San Diego, CA, United States, (2)UCSD Medical Center, Neurology, San Diego, CA, United States, (3)UCSD Medical Center, Neurosurgery, San Diego, CA, United States, (4)UCSD Medical Center, Orthopedic Surgery, San Diego, CA, United States

2:33 pm - 2:37 pm 513 Opioid-related Adverse Events with Spine Surgery: Is the Risk Real?
Speaker: D.W. Polly Jr
2:38 pm - 2:42 pm 454 **Hip Flexion Weakness after XLIF at L4-L5**
Speaker: R.E. Isaacs
Authors: R.E. Isaacs(1), J.A. Youssef(2), J.S. Uribe(3), SOLAS Degenerative Study Group
(1)Duke University Medical Center, Durham, NC, United States, (2)Spine Colorado, Durango, CO, United States, (3)University of South Florida, Tampa, FL, United States

2:43 pm - 2:47 pm 321 **Analysis of Multifidus Muscle Atrophy after Minimally Invasive Laminotomy**
Speaker: K. Singh
Authors: E. Sundberg(1), S.V. Nandyala(1), H. Hassanzadeh(1), A. Marquez-Lara(1), A. Jorgensen(1), J. Ahn(1), K. Aboushaala(1), K. Singh(1)
(1)Rush University Medical Center, Orthopaedics, Spine Surgery, Chicago, IL, United States

2:48 pm - 2:52 pm 535 **Biomechanical Evaluation of Total Disc Replacement (TDR) Device Anteroposterior Placement Variations**
Speaker: B.R. Cannon
Authors: B.R. Cannon(1), A.S. Newcomb(1), N.R. Crawford(2), P.M. Reyes(1), H.E. Soriano-Baron(1), B.P. Kelly(1), N. Theodore(1)
(1)Barrow Neurological Institute, Phoenix, AZ, United States, (2)Globus Medical, Inc., Phoenix, AZ, United States

2:53 pm - 3:02 pm **Discussion**

3:03 pm - 3:07 pm 165 **Biomechanical Analysis of Cortical vs Pedicle Screw Stability in XLIF, TLIF and PLIF Applications**
Speaker: E.K. Nomoto
(1)Cedars-Sinai Medical Center, Los Angeles, CA, United States, (2)Spinepainbegone.com, San Antonio, TX, United States, (3)Augusta Orthopedic & Sports Medicine Specialists, PC, Augusta, GA, United States, (4)NuVasive, Inc., San Diego, CA, United States

3:08 pm - 3:12 pm 187 **Interpedicular Kinematics in an In Vitro Biomechanical Assessment of a Bilateral Lumbar Spondylolytic Defect**
Speaker: A.D. Diwan
Authors: U. Chamoli(1,2), A.S. Chen(1), A.D. Diwan(1)
(1)University of New South Wales, Spine Service, St. George & Sutherland Clinical School, Sydney, NSW, Australia, (2)University of New South Wales, School of Mechanical and Manufacturing Engineering, Sydney, NSW, Australia

3:13 pm - 3:17 pm 320 **Neuroforaminal Bone Growth Following Minimally Invasive Transforaminal Lumbar Interbody Fusion with BMP: A Computed Tomographic Analysis**
Speaker: E. Tabaraee
Authors: A. Jorgensen(1), J. Ahn(1), A. Naqvi(1), K. Aboushaala(1), H. Hassanzadeh(1), E. Sundberg(1), K. Singh(1), E. Tabaraee(1)
(1)Rush University Medical Center, Orthopaedics, Spine Surgery, Chicago, IL, United States

3:18 pm - 3:22 pm 471 **Hybrid Construct with Anterior Fusion and Total Disc Replacement on 3 to 4 Lumbar Discal Levels**
Speaker: G. Edgard-rosa
Authors: G. Edgard-rosa(1), G. Geneste(1), T. Marnay(1)
(1)Clinique du Parc, Centre de Chirurgie Vertébrale, Castelnau le Lez, France

3:23 pm - 3:27 pm 346 **Accuracy of Self-reported Narcotic Utilization and Post-operative Narcotics Consumption in Patients Undergoing Spine Surgery**
Speaker: E. Tabaraee
Authors: A. Naqvi(1), J. Ahn(1), K. Aboushaala(1), I. Elbooghday(1), K. Singh(1), E. Tabaraee(1)
(1)Rush University Medical Center, Orthopaedics, Spine Surgery, Chicago, IL, United States

3:28 pm - 3:38 pm **Discussion**

3:30 pm - 6:30 pm - **Basic and Advanced Endoscopic Spinal Surgery: Indications, Techniques, and Complication Avoidance**

This course is free for ISASS15 attendees and is also available independent of ISASS15 registration for a fee of $100 per person, including the reception for course participants.

**Co Chairs:** James J. Yue, MD and Anthony Yeung, MD
3:30 pm - 3:35 pm  Welcome
Speaker: Anthony Yeung, MD

3:35 pm - 3:45 pm  Refinement of the Retractor, Light Source, and Instruments: From Blade to Cannula/ Naked Eye to Enhanced Vision
Speaker: Frederick Harrington, MD

3:45 pm - 4:00 pm  Surgical Transforaminal Anatomy: The Spine’s Natural Cannula
Speaker: James J. Yue, MD

4:00 pm - 4:30 pm  The Endoscopic Solution to Unifocal (Transforaminal and Interlaminar), Multi Focal, and Recurrent Disc Prolapse
Speaker: James J. Yue, MD

4:30 pm - 5:00 pm  Endoscopic Foraminoplasty Used to Treat Primary Foraminal Stenosis and Failed Back Syndrome: Diagnosis and Advanced Surgical Decompression Techniques, Avoidance of Complications
Speaker: Anthony Yeung, MD

5:00 pm - 5:10 pm  Discussion

5:10 pm - 5:20 pm  Break

5:20 pm - 5:35 pm  Selecting the Endoscopic Spine Surgery Patient
Speaker: Chris Yeung, MD

5:35 pm - 5:50 pm  Debate: Does the Grade 1 Spondylolisthesis patient with radicular pain always need to be fused?: Endoscopic Surgery (Anthony Yeung) vs MIS Fusion (Larry Khoo)
Speakers: Anthony Yeung, MD, Larry Khoo, MD

5:50 pm - 6:15 pm  Lumbar Foraminal Endoscopic Decompression Additional Techniques
Speaker: Choll Kim, MD, PhD

6:15 pm - 6:30 pm  Discussion

6:30 pm - 7:30 pm  Reception for Course Participants

3:45 pm - 3:55 pm  - Closing of ISASS15

Saturday, April 18, 2015

7:00 am - 2:00 pm  Cadaver Lab: Advanced Spinal Techniques