Total disc replacement has been in use for more than 20 years. On the continents of Europe, North America, South America, Asia, Africa, and Australia there are surgeons with high levels of experience with these devices and literature reporting good results, yet disc replacement has not gained universal acceptance as a treatment for painful disc degeneration. There are also reports expressing concern about wear debris and other complications.

After the presentations, there will be a question and answer session during which the audience will be encouraged to ask questions to the speakers.

The objectives of this course are as follows:

- Evaluate the favorable and unfavorable findings reported for lumbar total disc replacement
- Identify barriers to general acceptance to the use of this intervention
- Describe variation by continent of the acceptance and use of lumbar disc replacement
- Understand different approaches and thought processes regarding Cervical and Disc Replacement

**DISCUSSION PANEL: 10:00 AM – 11:00 AM**

- Tai Friesem, MD
- J. J. Abitbol, MD
- Rudolf Bertagnoli, MD
- Richard Guyer, MD

8:00 a.m. - 9:00 a.m.
Committee Meetings

9:30 a.m. - 9:45 a.m.
BREAK
Abstract: 473
**Mini-open Lateral Transpsoatic Lumbar Discectomy and Interbody Fusion: Technique and Results**
M.P. Lambat¹, G.A. Fantini¹, F.P. Girardi¹, A.A. Sama¹, F.P. Cammisa, Jr¹
¹Hospital for Special Surgery/Weill Medical College of Cornell University, Orthopaedic Surgery, New York, NY, USA
Abstract: 457
**Long-term Prospective Multi-center Clinical Cohort Evaluation of the AxiaLIF® Procedure**
T. Raley¹,², P.C. Gertzen³, W.D. Tobler⁴, H.E. Aryan⁵, C.P. Ames⁶, W. D. Bradley⁶
¹Virginia Hospital Center, Orthopaedics, Arlington, VA, USA,
²Georgetown University, Washington, DC, USA,
³INOVA Hospital System, Alexandria, VA, USA,
⁴University of Pittsburgh Medical Center, Pittsburgh, PA, USA,
⁵Mayfield Clinic, Cincinnati, OH, USA,
⁶University of California San Diego, San Diego, CA, USA,
³Texas Back Institute, Dallas, TX, USA

### DISCUSSION

Tuesday, April 27, 2010

**10:30 a.m. - 11:00 a.m.**

*Advocacy Lunch*

*This is non-CME*

**11:00 a.m. - 12:00 p.m.**

**DISCUSSION**

**12:00 p.m. - 1:00 p.m.**

*Advocacy Lunch*

*This is non-CME*

**1:00 p.m. - 2:15 p.m.**

**SYMPOSIUM I: “MIS: Where Does It Fit Into My Practice?”**
**Moderator: Jim Schwender, MD**

Objectives: The symposium will highlight surgical techniques, tips, and pearls of state-of-the-art MIS surgical techniques. The goal is to provide key insights that allow for successful application of MIS technology.

- **Anatomy of Minimally Invasive Spine Surgery:** Wolfgang Rauschning, MD, PhD
- **MIS Decompression:** Carl Lauryssen, MD
- **MIS TLIF for Spondylolisthesis:** Kern Singh, MD
- **MIS Lateral Approach for Scoliosis:** Joseph Riina, MD
- **Advanced Techniques for Common Painful Conditions of the Lumbar Spine:** Anthony Yeung, MD
- **MIS Complications and Avoidance:** Isador Lieberman MD MBA FRCS(C), Q and A
- **MIS Case Presentations/Discussion:** Moderator: Neel Anand, MD

Panel: Kevin Foley, MD; Choll Kim, MD, PhD, William Taylor, MD

**2:15 p.m. - 2:45 p.m.**

*SAS Business Meeting*

*This is non-CME*

**2:45 p.m. - 4:00 p.m.**

**MIS II**

**Moderators:** Choll Kim, MD, PhD; Larry Khoo, MD

**2:45 p.m. - 2:51 p.m.**

**Abstract: 45**

**Minimally Invasive TLIF with Pedicle Screws for the Treatment of Degenerative Lumbar Spinal Disorders**
T. Julien¹, J. Manon¹, C. Sedney¹, J. Mills¹, J. Orphanos¹
¹West Virginia University, Neurosurgery, Morgantown, WV, USA

**2:52 p.m. - 2:58 p.m.**

**Abstract: 337**

**AxiaLIF(r) Complications in 285 Consecutive Cases**
W.D. Smith¹, K. Malone², W.B. Rodgers³, J. Patterson²
¹Nevada Neurosciences Institute Research Foundation, Research, Las Vegas, NV, USA
²Spine Midwest Research, Jefferson City, OK, USA
³Spine Midwest Research, Jefferson City, OK, USA

**2:59 p.m. - 3:05 p.m.**

**Abstract: 473**

**Mini-open Lateral Transpsoatic Lumbar Discectomy and Interbody Fusion: Technique and Results**
M.P. Lambat¹, G.A. Fantini¹, F.P. Girardi¹, A.A. Sama¹, F.P. Cammisa, Jr¹
¹Hospital for Special Surgery/Weill Medical College of Cornell University, Orthopaedic Surgery, New York, NY, USA

**3:06 p.m. - 3:12 p.m.**

**Abstract: 457**

**Long-term Prospective Multi-center Clinical Cohort Evaluation of the AxiaLIF® Procedure**
T. Raley¹,², P.C. Gertzen³, W.D. Tobler⁴, H.E. Aryan⁵, C.P. Ames⁶, W. D. Bradley⁶
¹Virginia Hospital Center, Orthopaedics, Arlington, VA, USA,
²Georgetown University, Washington, DC, USA,
³INOVA Hospital System, Alexandria, VA, USA,
⁴University of Pittsburgh Medical Center, Pittsburgh, PA, USA,
⁵Mayfield Clinic, Cincinnati, OH, USA,
⁶University of California San Diego, San Diego, CA, USA,
³Texas Back Institute, Dallas, TX, USA

**3:13 p.m. - 3:19 p.m.**

**DISCUSSION**

**3:20 p.m. - 3:26 p.m.**

**Abstract: 7**

**Minimally Invasive Treatment of Thoracolumbar Fractures**
T. Julien¹
¹West Virginia University, Neurosurgery, Morgantown, WV, USA

**3:27 p.m. - 3:33 p.m.**

**Abstract: 188**

**Effectiveness of Vertebral Augmented and Screw Reinforced Posterior Short Segment Fixation for Thoracolumbar Burst Fractures**
H.S. Kim¹, K.H. Jeon¹, W.J. Choi¹, K.T. Kim¹, C.I. Ju¹, S.W. Kim², S.M. Lee², H. Shin²
¹Hurisarang Hospital, Department of Neurosurgery, Daejeon City, Korea, Republic of
²Chosun University Hospital, Department of Neurosurgery, Gwangju City, Korea, Republic of

**3:34 p.m. - 3:40 p.m.**

**Mid to Long Term, 1 to 2 Year Clinical and Functional Outcomes of Minimally Invasive Surgery for Scoliosis**
N. Anand¹, R. Rosemann¹, B. Khalsa², E. Baron³
¹Cedars Sinai Medical Center, Spine Center, Los Angeles, CA, USA
²University of California San Diego, San Diego, CA, USA
³University of Pittsburgh Medical Center, Pittsburgh, PA, USA

**3:41 p.m. - 3:47 p.m.**

**Abstract: 413**

**Deformity in Adults: Outcomes of Minimally-invasive Surgical Treatment (XLIF) out to 42 Months Post-op. An South American Case Series**
H. Nicola¹, L. Pimenta²
¹Hospital San Juan de Dios, Spinal Surgery, Caracas, DC, Venezuela
²Hospital Santa Rita, Spine Surgery, Sao Paulo, SP, Brazil

**3:48 p.m. - 4:00 p.m.**

**DISCUSSION**
4:00 p.m. - 5:00 p.m.
ORAL POSTER PRESENTATIONS
Rooms 206 - 210

Concurrent sessions on:
Posterior Dynamic Stabilization and Facet Replacement, Nucleus Replacement and Anulus Repair, Cervical TDR, Lumbar TDR, Complications and MIS, Fusion and Miscellaneous

MODERATOR: J.J. Abitbol, MD
SESSION I: Room 206
POSTERIOR DYNAMIC STABILIZATION AND FACET REPLACEMENT

4:00 p.m. - 4:03 p.m.; Discussion: 4:03 p.m. - 4:06 p.m.
Abstract: 127
Minimum Two-year Follow-up of Cases with Recurrent Disc Herniation Treated with Microdecompression and Posterior Dynamic Transpedicular Stabilization
T. Kaner1, M. Samani2, T. Oktener1, A. F. Ozer2
1Pendik State Hospital, Istanbul, Turkey, 2American Hospital, Istanbul, Turkey

4:06 p.m. - 4:09 p.m.; Discussion: 4:09 p.m. - 4:12 p.m.
Abstract: 180
Stratification by Indication Analysis of the Dynesys® Dynamic Stabilization System IDE Study 24-month Results
J.M. Maxwell1, W. Wollch1, R. Davis1, A. Menzies4
1Scottsdale Spine Care, Scottsdale, AZ, USA, 2University of Pennsylvania, Philadelphia, PA, USA, 3Greater Baltimore Medical Center, Baltimore, MD, USA, 4Zimmer Spine, Minneapolis, MN, USA

4:12 p.m. - 4:15 p.m.; Discussion: 4:15 p.m. - 4:18 p.m.
Abstract: 265
The Role of Face Contact in Reducing Intervertebral Shear During Simulated Standing
S.A. Rundell1,2, S.M. Kurtz2, J. Isaza1, S. Guillory1, J. Day4
1Exponent, Inc, Detroit, MI, USA, 2Drexel University, Philadelphia, PA, USA, 3Our Lady of the Lake Hospital, Baton Rouge, LA, USA, 4Exponent, Inc, Philadelphia, PA, USA

4:18 p.m. - 4:21 p.m.; Discussion: 4:21 p.m. - 4:24 p.m.
Abstract: 415
Treatment of Lumbar Spinal Stenosis with a Total Posterior Arthroplasty Prosthesis versus Posterior Lumbar Fusion: A Prospective Report on 145 Patients
1Instituto de Patologia da Coluna, Sao Paolo, Brazil, 2Middlesex Hospital, Antwerp, Belgium, 3Florence Nightingale Hospital, Orthopedics, Istanbul, Turkey, 4The Boston Spine Group, Newton, MA, USA, 5Tel-Aviv University, Tel-Aviv, Israel, 6Buffalo Spine Surgery, Lockport, NY, USA, 7Carolina Neurosurgery and Spine Associates, Charlotte, NC, USA, 8New England Neuro Associates, Springfield, MA, USA, 9Milwaukee Spinal Specialists, Milwaukee, WI, USA, 10Illinois Neuro-Spine Center, Aurora, IL, USA, 11SpineCare Medical Group, Daly City, CA, USA, 12Orthopedic and Sports Medicine Center, Trumbull, CT, USA, 13NeuroSpine Center of Wisconsin, Appleton, WI, USA, 14Yale University, New Haven, CT, USA, 15Spine Group Beverly Hills, Beverly Hills, CA, USA, 16LA Spine Clinic, Los Angeles, CA, USA, 17Tower Orthopedic and Neurosurgical Spine Institute, Beverly Hills, CA, USA, 18Columbia Orthopedic Group, Columbia, MO, USA, 19Greater Chesapeake Orthopedic Associates, Baltimore, MD, USA, 20Southwestern Medical Center, Dallas, TX, USA, 21The Center for Spinal Disorders, Temple Terrace, FL, USA

NUCLEUS REPLACEMENT AND ANULUS REPAIR

4:24 p.m. - 4:27 p.m.; Discussion: 4:27 p.m. - 4:30 p.m.
Abstract: 285
The Effect of Anular Repair on Sciatica Patients Receiving a Micro-discectomy Procedure
A. Araghi1, C.E. Sudeln2
1Texas Back Institute, Phoenix, AZ, USA, 2Anulex Technologies Inc., Minnetonka, MN, USA

4:30 p.m. - 4:33 p.m.; Discussion: 4:33 p.m. - 4:36 p.m.
Abstract: 208
Prospective, Randomized Controlled Study of Repairing the Anulus Fibrosus after Lumbar Discectomy: A Single Surgeon’s Experience
A. Bailey1, J. Messer2
1Heartland Spine and Specialty Hospital, Overland Park, KS, USA, 2Anulex Technologies Inc., Minnetonka, MN, USA

4:36 p.m. - 4:39 p.m.; Discussion: 4:39 p.m. - 4:42 p.m.
Abstract: 197
Reoperation Rates after Microdiscectomy with and without Anular Repair
L. Guyot1, S.L. Griffith2
1Genesys Regional Medical Center, Grand Blanc, MI, USA, 2Anulex Technologies Inc., Minnetonka, MN, USA

4:42 p.m. - 4:45 p.m.; Discussion: 4:45p.m. - 4:48 p.m.
Abstract: 483
Two Year Follow-up Results of NUBAC, a Peek on Peek Nucleus Replacement Device: A Prospective Worldwide Multi-center Clinical Study
H. Yuan1, D. Coric2, M. Songer3, L. Pimenta4, A. Reyes-Sanchez5, D. Werner6, M. Balsano7, U. Agrillo8, A. Bucciero1
1Syracuse Upstate Medical University, Syracuse, NY, USA, 2Carolina Neurosurgery and Spine Associates, Charlotte, NC, USA, 3Orthopedic Surgery Associates of Marquette, Marquette, MI, USA, 4Clinica Mattos Pimenta, Sao Paolo, Brazil, 5Division de Cirugia Especial Instituto Ortopedia, Mexico City, Mexico, 6Arcade Clinic, Niederschmalkaden, Germany, 7Ospedale di Thiene, Thiene, Italy, 8Ospedale Sandro Pertini, Rome, Italy, 9Clinica Pineta Grande, Casturmo, Italy

4:48 p.m. - 4:51 p.m.; Discussion: 4:51 p.m. - 4:54 p.m.
Abstract: 411
Disc Herniation Induces 55% Increase in Load of Key Stabilizing Muscle – Impact on Herniation Treatment Devices
B. Robie1, S. Dendorfer2, J. Rasmussen3, S. Tørholm2
1ARO Medical, LLC, Glen Rock, NJ, USA, 2AnyBody Technology, Aalborg, Denmark, 3Aalborg University, Department of Mechanical Engineering, Aalborg, Denmark

Tuesday, April 27, 2010
4:00 p.m. - 5:00 p.m.
**ORAL POSTER PRESENTATIONS**

**MODERATOR:** Carl Lauryssen, MD  
**SESSION II: Room 207**  
**CERVICAL TDR**

4:00 p.m. - 4:03 p.m.; Discussion: 4:03 p.m. - 4:06 p.m.  
**Abstract: 375**  
**Improved Assessment of MRI Artifact Following Cervical Total Disc Arthroplasty**  
A.H. Fayyazi¹, D. Svach¹, S. Hanson¹, J. Chen³, J. Taormina³, N.R. Ordway²  
¹VSAS Orthopedics, Allentown, PA, USA, ²Synthes Spine, West Chester, PA, USA, ³SUNY Upstate Medical University, Orthopedic Surgery, Syracuse, NY, USA

4:06 p.m. - 4:09 p.m.; Discussion: 4:09 p.m. - 4:12 p.m.  
**Abstract: 107**  
**Prospective, Controlled Results of Patients Treated with Expanded Indications for ProDisc®-C**  
M.E. Janssen¹, R. Delamarter²  
¹Center for Spinal Disorders, Thornton, CO, USA, ²The Spine Institute at St John's Health Center, Santa Monica, CA, USA

4:12 p.m. - 4:15 p.m.; Discussion: 4:15 p.m. - 4:18 p.m.  
**Abstract: 37**  
**The Clinic Result of Bryan Artificial Disc Single Level Replacement for the Cervical Disc Degenerative Diseases: Two-year Follow-up**  
R. Shi¹, L. Hao¹, R. Shi¹, T. Hu¹, X. Zhao¹, X. Liu¹  
¹West China Hospital, Sichuan University, Department of Orthopedic, Chengdu, China

4:18 p.m. - 4:21 p.m.; Discussion: 4:21 p.m. - 4:24 p.m.  
**Abstract: 352**  
**SECURE®-C Cervical Artificial Disc IDE: Two Year Clinical Outcomes**  
J. McConnell¹, J. Marzluff², J. Highsmith², C.R. Tomaras³, T.J. Morrison³, J. Volcan³, A. Goodrich³, P. Asdourian³  
¹Lehigh Valley Medical Center, Allentown, PA, USA, ²Trident Medical Center, Charleston, SC, USA, ³Northside Hospital, Atlanta, GA, USA, ²Doctor’s Hospital, Augusta, GA, USA, ³Union Memorial Hospital, Baltimore, MD, USA

4:24 p.m. - 4:27 p.m.; Discussion: 4:27 p.m. - 4:30 p.m.  
**Abstract: 470**  
**In vivo versus in vitro Normal Cervical Sagittal Plane Biomechanics**  
N.R. Crawford¹, N. Wharton², P.M. Reyes¹, J.A. Hipp²  
¹Barrow Neurological Institute, Spinal Biomechanics, Phoenix, AZ, USA, ²Medical Metrics, Inc, Houston, TX, USA

4:30 p.m. - 4:33 p.m.; Discussion: 4:33 p.m. - 4:36 p.m.  
**Abstract: 495**  
**In-vivo Kinematic Comparison of Prodisc-C, Prestige LP and Bryan Cervical Disc**  
N. Duggal¹, I. Kowalczyk², D. Rabin¹  
¹University of Western Ontario, Clinical Neurological Sciences, London, Canada, ²University of Western Ontario, London, Canada

4:36 p.m. - 4:39 p.m.; Discussion: 4:39 p.m. - 4:42 p.m.  
**Abstract: 159**  
**Biomechanical Comparison of Multi-level Cervical Disc Arthroplasty versus Fusion: ProDisc-C versus Prestige-LP**  
D.J. DiAngelo¹, L.J. Gilmour¹, J.S. Schwab¹, K.T. Foley¹, J.W. German¹, B.P. Kelly¹  
¹The University of Tennessee Health Science Center, Department of Biomedical Engineering and Imaging, Memphis, TN, USA, ²The University of Tennessee Health Science Center, Department of Neurosurgery, Memphis, TN, USA

4:42 p.m. - 4:45 p.m.; Discussion: 4:45 p.m. - 4:48 p.m.  
**Abstract: 267**  
**Comparative Analysis of Radiographic, Clinical, and Surgical Outcome in Cervical Arthroplasty in Terms of Numbers of Involved Level**  
C.W. Lee¹, K.J. Yoon¹, S.S. Ha¹, J.K. Kang¹  
¹St. Peter’s Hospital, Neurosurgery, Seoul, Korea, Republic of
MODERATORS: Robert Havey, BS;
William Sears, MD
SESSION III: Room 208
LUMBAR TDR

4:00 p.m. - 4:03 p.m.; Discussion: 4:03 p.m. - 4:06 p.m.
Abstract: 272
Disc Height Distraction Increases Range of Motion and Impingement Risk in Fixed and Mobile Bearing Total Disc Replacements
S.A. Rundell,1,2,3 R. Siskney,1 J. Izaaz,1 S.M. Kurtz1,2,5
1Exponent, Inc, Detroit, MI, USA, 2Drexel University, Philadelphia, PA, USA, 3Exponent, Inc, Philadelphia, PA, USA, 4Our Lady of the Lake Hospital, Baton Rouge, LA, USA, 5Exponent, Inc, Philadelphia, PA, USA

4:06 p.m. - 4:09 p.m.; Discussion: 4:09 p.m. - 4:12 p.m.
Abstract: 191
T.D. Brown,2,5 J. Yue,2,5 P. Newman,3,2,5 J. Fishman,3,2,5,16 A. Aventura Hospital, Orthopaedic Surgery, Aventura, FL USA, 2Aventura Hospital, Orthopaedic Surgery, Aventura, FL USA, 3Spine Institute of Louisiana, Shreveport, LA, USA, 4Pennsylvania Hospital, Philadelphia, PA, USA, 5Penn State Health, Hershey Medical Center, Hershey, PA, USA

4:12 p.m. - 4:15 p.m.; Discussion: 4:15 p.m. - 4:18 p.m.
Abstract: 239
Restoration of Biomechanics in Lumbar Spinal Segments Treated with Artificial Disc Replacement
U.M. Ayturk,1 C.M. Puttlitz,2 V. Patel1,3
1Colorado State University, Department of Mechanical Engineering, Fort Collins, CO, USA, 2University of Colorado, Orthopaedic Spine Surgery, Denver, CO, USA

4:18 p.m. - 4:21 p.m.; Discussion: 4:21 p.m. - 4:24 p.m.
Abstract: 70
Biomechanical Evaluation of a Single Level Selectively Constrained Anterior PEEK Lumbar Disc and Its Effect on Adjacent Level Kinematics: An in-vitro Cadaveric Study
T.K. Daftari,1 S.R. Chinthakunta2, M. Gudipally2, M. Hussain2, S. Khalil2
1WellStar Kennestone Hospital, Orthopaedics, Atlanta, GA, USA, 2Globus Medical Inc, Research, Audubon, PA, USA

4:24 p.m. - 4:27 p.m.; Discussion: 4:27 p.m. - 4:30 p.m.
Abstract: 453
Effects of Testing Parameter Perturbations in the ISO Standard for Wear of the ProDisc-L Total Disc Replacement
C.M. Goreham-Voss1, T.D. Brown1, R.M. Hall2
1The University of Iowa, Orthopaedic Surgery and Biomedical Engineering, Iowa City, IA, USA, 2University of Leeds, Institute of Medical and Biological Engineering, Leeds, United Kingdom

4:30 p.m. - 4:33 p.m.; Discussion: 4:33 p.m. - 4:36 p.m.
Abstract: 279
Biomechanics of Disc Arthroplasty. What Can Be Done to Improve Results - Present and Future Perspectives
L. Pimenta1,2, L. Marchi1, E. Coutinho1, L. Oliveira1,3
1Instituto de Patologia da Coluna, Sao Paulo, Brazil, 2University of California San Diego, Neurosurgery, San Diego, CA, USA, 3Universidade Federal de Sao Paulo, Radiology, Sao Paulo, Brazil

4:36 p.m. - 4:39 p.m.; Discussion: 4:39 p.m. - 4:42 p.m.
Abstract: 51
Direct Comparison of Two Lumbar Total Disc Replacement Devices: Results from a Prospective, Randomized, Multicenter FDA-regulated Trial
1Buffalo Spine Surgery, Lockport, NY, USA, 2Texas Back Institute, Plano, TX, USA, 3Rocky Mountain Associates in Orthopedic Medicine, Loveland, CO, USA, 4Orthopedics International Spine, Seattle, WA, USA, 5Triangle Orthopedics Associates, Durham, NC, USA, 6Carolina Neurosurgery and Spine Associates, 7Orthopaedic Associates, P.A., Towson, MD, USA, 8Gordon Spine Associates, Tyler, TX, USA, 9Slocum Dickson Medical Group, New Hartford, NY, USA, 10Spine Institute of Louisiana, Shreveport, LA, USA, 11Illinois Neuro-Spine Center, Aurora, IL, USA, 12CORE Orthopedic Medical Center, Encinitas, CA, USA, 13Sierra Regional Spine Institute, Reno, NV, USA, 14Tower Orthopedics and Sports Medicine, Beverly Hills, CA, USA, 15Maryland Brain and Spine Center, Annapolis, MD, USA, 16Loma Linda University, Loma Linda, CA, USA, 17University of California San Francisco, San Francisco, CA, USA, 18University of California San Diego, San Diego, CA, USA, 19Manhattan Orthopaedics, P.C., New York, NY, USA, 20Kaiser Oakland Spine Surgery, Oakland, CA, USA

4:42 p.m. - 4:45 p.m.; Discussion: 4:45 p.m. - 4:48 p.m.
Abstract: 124
Results from the Prospective, Randomized, Multicenter IDE Study of 2-level ProDisc®-L: Randomized Patients versus Continued Access Patients at 2 Years
1Center for Spinal Disorders, Thornton, CO, USA, 2Texas Back Institute, Plano, TX, USA, 3The Spine Institute at St John’s Health Center, Santa Monica, CA, USA, 4Pennsylvania Hospital, Philadelphia, PA, USA, 5NYU Hospital for Joint Diseases, New York, NY, USA, 6CORE Orthopedic Medical Center, Encinitas, CA, USA, 7St Mary’s Spine Center, San Francisco, CA, USA, 8Yale University, New Haven, CT, USA, 9Haider Spine Center Medical Clinic, Inc, Riverside, CA, USA, 10Orthopedic Spine Associates, LLC, Eugene, OR, USA, 11Hospital for Special Surgery, New York, NY, USA, 12Texas Spine and Joint Hospital, Tyler, TX, USA, 13Michigan Brain & Spine Institute PC, Ypsilanti, MI, USA, 14Watkins Spine Group, Marina Del Ray, CA, USA, 15SUNY Syracuse, Syracuse, NY, USA, 16Twin Cities Orthopedics, Edina, MN, USA, 17William Beaumont Hospital, Royal Oak, MI, USA

4:48 p.m. - 4:51 p.m.; Discussion: 4:51 p.m. - 4:54 p.m.
Abstract: 231
A Prospective Clinical Comparison of 3 Biomechanical Types of Lumbar Disc Replacements: A Semi-constrained Device, a Controlled Translation Device, and an Unconstrained Device Minimum 2 Year Follow-up
J.J. Yue1, R. Ramachandran1, R. Garcia2
1Yale University School of Medicine, Orthopaedic Surgery, New Haven, CT, USA, 2Aventura Hospital, Orthopaedic Surgery, Aventura, FL USA

4:54 p.m. - 4:57 p.m.; Discussion: 4:57 p.m. - 5:00 p.m.
Abstract: 295
Propective Randomized Study of Pre and Post Lumbar TDR: Comparison of Unconstrained, Semi-constrained, and Constrained TDR Designs
R. Garcia1, J. Yue1, P. Newman1, N. Wharton1, J. Hipp1
1Orthopedic Care Center, Aventura, FL, USA, 2Yale University School of Medicine, Orthopedic Surgery, New Haven, CT, USA, 3Medical Metrics, Inc, Houston, TX, USA

5:00 p.m. - 5:03 p.m.; Discussion: 5:03 p.m. - 5:06 p.m.
Abstract: 480
Effect of Total Lumbar Disc Replacement on Segmental and Lumbar Sagittal Balance and Movement
R. Sinigaglia1, U. Nena1, 2, D.A. Fabris Monterumici2, 3
1Padua University, Padova, Italy, 2Padua University Hospital, Padua, Italy
Abstract: 277
Evaluation of Hip Flexion Strength Following Extreme Lateral Interbody Fusion: Is the Psoas Muscle Seriously Injured?
H. Ghofrani1, Y.P. Lee1, G.J. Regev1, M. Gulian1, S.R. Garfin1, C.W. Kim2
1University of California, Orthopaedic Surgery, San Diego, CA, USA, 2Alvarado Hospital, Orthopaedic Surgery, San Diego, CA, USA

Abstract: 123
Complications Associated with Axial Lumbar Interbody Fusion
E.M. Lindley1, M. McCullough1, C. Brown1, E.L. Burger1, V.V. Patel1
1University of Colorado Denver, Orthopaedics, Aurora, CO, USA

Abstract: 233
The Subsidence Rate in XLIF Osteoporotic Patients in Standalone Procedures
L. Pimenta1,2, L. March1, E. Coutinho1,3, L. Oliveira1,3
1Instituto de Patologia da Coluna, São Paulo, Brazil, 2University of California San Diego, Neurosurgery, San Diego, USA, 3Universidade Federal de São Paulo, Radiology, São Paulo, Brazil

Abstract: 146
The Surgical Anatomy of Lumbar Sympathetic, Autonomic, and Furcal Nerves: Their Significance in Selective Endoscopic Discectomy
A.T. Yeung1, Y. Zheng1
1Desert Institute for Spine Care, Phoenix, AZ, USA

Abstract: 377
Diagnosis and Treatment of Nonunion of Osteoporotic Thoracolumbar Vertebral Fractures
H. Yang1, G. Wang1
1The First Affiliated Hospital of Soochow University, Suzhou, China

Abstract: 323
Navigation-guided Pedicle Screw Placement: Can This Procedure Substitute the Conventional Use of Fluoroscopy in the Thoracic and Lumbar Spines?
K.S. Ryu1, K.Y. Lee1, H.J. Lee1, C.K. Park1
1Seoul St. Mary's Hospital, the Catholic University of Korea, Neurosurgery, Seoul, Korea, Republic of
Moderator: Michael Janssen, DO
SESSION V: Room 210
FUSION AND MISCELLANEOUS

4:00 p.m. - 4:03 p.m.; Discussion: 4:03 p.m. - 4:06 p.m.
Abstract: 108
Quantification of Intradiscal Pressures below Thoracolumbar Spinal Fusion Constructs: Is There Evidence to Support “Saving a Level?”
B. Lonner1, J. Auerbach2, T. Errico3, A. Freeman4, D. Goerke1, B. Beaubien1
1NYU Hospital for Joint Diseases, Orthopaedic Surgery, New York, NY, USA, 2Washington University School of Medicine, St. Louis, MO, USA, 3Excelen Center for Bone and Joint Research and Education, Minneapolis, MN, USA

4:06 p.m. - 4:09 p.m.; Discussion: 4:09 p.m. - 4:12 p.m.
Abstract: 119
Metanalysis of Class I and II Data on Results of Anterior Cervical Decompression and Fusion
K.A. Pettine1, L. Eisermann2
1The Spine Institute, Loveland, CO, USA, 2NuVasive, Inc, San Diego, CA, USA

4:12 p.m. - 4:15 p.m.; Discussion: 4:15 p.m. - 4:18 p.m.
Abstract: 60
Analysis of Change in Scores in Commonly Used Outcome Measures: What Can We Legitimately Assume about the Stability of Individual Patient Scores Based on Group Mean Scores?
D.D. Ohnmeiss1, R.D. Guyer2, S.L. Blumenthal2
1Texas Back Institute Research Foundation, Plano, TX, USA, 2Texas Back Institute, Plano, TX, USA

4:18 p.m. - 4:21 p.m.; Discussion: 4:21 p.m. - 4:24 p.m.
Abstract: 115
Spine Surgery at an Ambulatory Surgery Center
K.A. Pettine1
1The Spine Institute, Loveland, CO, USA

4:24 p.m. - 4:27 p.m.; Discussion: 4:27 p.m. - 4:30 p.m.
Abstract: 235
Marked Improvement in Patients Treated with Vertebroplasty after Painful Osteoporotic Compression Fractures
H. Bae1, L.E.A. Kanim1, N. Gupta1, M. Kropfi1, R. Delamarter1
1Spine Research Foundation, Santa Monica, CA, USA

4:30 p.m. - 4:33 p.m.; Discussion: 4:33 p.m. - 4:36 p.m.
Abstract: 169
The Feasibility of Radiation-free Diagnostic Monitoring in Adolescent Idiopathic Scoliosis Using a Novel, Upright Positional MRI Protocol
B. Lonner1, J. Auerbach2, L. Dean3, Y. Goldstein3
1NYU Hospital for Joint Diseases, Orthopaedic Surgery, New York, NY, USA, 2Washington University School of Medicine, St. Louis, MO, USA

4:36 p.m. - 4:39 p.m.; Discussion: 4:39 p.m. - 4:42 p.m.
Abstract: 405
Histological Features of the Degenerating Intervertebral Disc in the Goat Disc-injury Model
H. An1, Y. Zhang1, B. Lenart1, S. Drapeau1, D. Markova1, D.G. Anderson1
1Rush University Medical Center, Chicago, IL, USA, 2Medtronic Spinal Biologics, Memphis, TN, USA, 3Thomas Jefferson University, Philadelphia, PA, USA

4:42 p.m. - 4:45 p.m.; Discussion: 4:45 p.m. - 4:48 p.m.
Abstract: 263
Radiation to Surgeon’s Hands Wearing and Not Wearing Lead Gloves
A. Yeung1
1Desert Institute for Spine Care, Phoenix, AZ, USA

4:48 p.m. - 4:51 p.m.; Discussion: 4:51 p.m. - 4:54 p.m.
Abstract: 433
MRI-based Thickness Measurements of Lumbar Facet Joint Subchondral Bone
H. An1, C. Y. Duan2, N. Inoue1, A.A. Orías1, G.B. Andersson1, J. Hu2, H. Lu1
1Rush University Medical Center, Orthopaedic Surgery, Chicago, IL, USA, 2Xiangya Hospital, Central South University, Orthopaedic Surgery, Changsha, China

5:00 p.m. - 7:00 p.m.
OPENING RECEPTION/TRANSFER OF PRESIDENCY
10:30 a.m. - 11:00 a.m.
BREAK

11:00 a.m.- 12:00 p.m.
CERVICAL/DEFORMITY
Moderators: Rudolf Bertagnoli, MD; Paul Anderson, MD
11:00 a.m. - 11:06 a.m.

Abstract: 129
Axial Neck Pain after Cervical Laminoplasty
C.K. Chough1, J.Y. Oh1, C.K. Park1
1St. Mary’s Hospital, The Catholic University of Korea, College of Medicine, Department of Neurosurgery, Seoul, Korea, Republic of

11:07 a.m. - 11:13 a.m.

Abstract: 299
CerviCore® vs. Fusion: Two Year Clinical Results and Pain Medication Usage at Five IDE Study Sites
R. Garcia1, N.M. Wright1, W.S. Edwards1, C.S Theofilos1, L.L. Thibodeau1
1Orthopedic Care Center, Aventura, FL, USA, 2Washington University School of Medicine, St. Louis, MO, USA, 3Pee Dee Spine Center, Florence, SC, USA, 4The Spine Center, Palm Beach Gardens, FL, USA, 5Neurosurgery Associates, Scarborough, ME, USA

11:14 a.m. - 11:20 a.m.

Abstract: 356
Prospective Study of Cervical Arthroplasty: 98 Patients from Three Separate IDE Studies from a Single Investigational Site with Minimum Two Year Follow-up
D. Coric1, J. Cassis1, J.D. Carew2, M.O. Boltes1
1Carolina Neurosurgery and Spine Associates, Charlotte, NC, USA, 2Carolina HealthCare System, R Stuart Dickson Institute for Health Studies, Charlotte, NC USA

11:21 a.m. - 11:30 a.m.

DISCUSSION

11:31 a.m. - 11:37 a.m.

Abstract: 175
Prospective, Non-randomized, Multi-center Clinical Evaluation of Extreme Lateral Interbody Fusion (XLIF) in the Treatment of Adult Scoliosis
K. Malone1, W.B. Rodgers1, A.G. Tohmeh1, J.A. Hyde1, K. Khajavi1
1NNI Research Foundation, Las Vegas, NV, USA, 2SpineMidwest, Inc., Jefferson City, MO, USA, 3Orthopaedic Specialty Clinic of Spokane, Spokane, WA, USA, 4South Florida Spine Institute, Miami Beach, FL, USA, 5Georgia Spine & Neurosurgical Institute, Decatur, GA, USA

11:38 a.m. - 11:44 a.m.

Abstract: 67
Does Duration of Symptoms Affect the Outcome of Cervical Disc Replacement (TDA)?
A. Kasis1, R. Taranu1, L. Marshman1, Friesem1
1University Hospital of NorthTees, Spine Unit, Stockton-on-Tees, United Kingdom

11:45 a.m. - 11:51 a.m.

Abstract: 390
Changes in Coronal and Sagittal Plane Alignment after XLIF Procedure in the Treatment of Degenerative Scoliosis
L. Pimenta1,2, L. Marchi1, E. Coutinho1, L. Oliveira1,3
1Instituto de Patologia da Coluna, São Paulo, Brazil, 2University of California San Diego, CA, Neurosurgery, San Diego, CA, USA, 3Universidade Federal de São Paulo, Radiology, São Paulo, Brazil

11:52 a.m. - 12:00 p.m.

DISCUSSION

12:00 p.m. - 2:00 p.m.

INDUSTRY WORKSHOPS

2:00 p.m. - 3:15 p.m.

SYMPOSIUM III: “Defining Value in Spine Care”
Moderator: Frank Phillips, MD

• How Do We Define and Measure Value?
  Steve Glassman, MD

• Value Assessment of New Spinal Technologies
  Frank Phillips, MD

• Comparative Effectiveness: What Does It Mean?
  David Wong MD, MSc, FRCS(C)

• Value in Spine Care: The European Experience
  Rudolf Bertagnoli, MD

• The Value Case for Cervical TDR and ACDF
  Todd Albert, MD

3:15 p.m. - 3:45 p.m.

BREAK

3:45 p.m. - 5:00 p.m.

CERVICAL WORLD CAFÉ (Room 212)
LUMBAR WORLD CAFÉ (Room 209)
MIS WORLD CAFÉ (Room 210)

Faculty:
(MIS) Luiz Pimenta, MD, PhD
(Cervical) James Yue, MD
(Lumbar) Jack Zigler, MD

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. At this year’s meeting, SAS is offering a new, innovative program that will be based around Cervical, Lumbar and MIS case studies developed by leaders in the spine industry, called a World Café. The world café is an intensive round table discussion program that discusses a series of challenging case studies that will allow participants to confer on treatment options and protocols.

Participants must select either CERVICAL, LUMBAR or MIS cases to review, then after rounds of discussion, the group will gather to share and explore emerging outcomes, insights and learnings.

Learning Objectives:

• Participants will be able to learn from each other by listening together for patterns, insights, and deeper questions relating to their case study.

• By cross-pollinating ideas and sharing thoughts, collective discoveries and outcomes will be developed and that are meaningful to studies outcome.

Wednesday, April 28, 2010
8:00 a.m. - 8:45 a.m.  SPINAL BIOLOGICS/ANNULAR REPAIR
Moderators: Lisa Ferrera, PhD; Courtney Brown, MD

Abstract: 248
BIOSTAT BIOLOGIX® Intradiscal Fibrin Sealant Used for the Treatment of Chronic Low Back Pain Caused by Lumbar Internal Disc Disruption: Results of a 12 Month, Prospective Multicenter Pilot Study
K. Pauza1, W. Yin2, W. Olam1, J. Doerzbacher4
1Texas Spine and Joint Hospital, Interventional Spine, Tyler, TX, USA, 2Bellingham Spine, Bellingham, WA, USA, 3Potomac, Potomac, MA, USA, 4Spinal Restoration, Austin, TX, USA

8:07 a.m. - 8:13 a.m.  
Abstract: 409
Cell Therapy with Human Umbilical Cord Blood-derived Mesenchymal Stem Cells for Intervertebral Disc Repair in Cultured Rabbit Disc Explants
H. An1, Y. Zhang1, D. Markova1, B. Saitter1, V. Markov1, M. Enomoto-Iwamoto1, A. Chee1, D.G. Anderson2
1Rush University Medical Center, Chicago, IL, USA, 2Thomas Jefferson University, Philadelphia, PA, USA, 3Cornell Institute, Camden, NJ, USA

8:14 a.m. - 8:20 a.m.  
Abstract: 406
Inflammatory Response in Intervertebral Disc Cells is Reduced by Fibrin Sealant
Z. Buser1, J. Liu1, D. Coughlin1, J.C. C Lotz1, K.J. Thorne2
1UCSF, Orthopaedic Surgery, San Francisco, CA, USA, 2Spinal Restoration Inc, Austin, TX, USA

8:21 a.m. - 8:27 a.m.  
Abstract: 219
Preliminary Observations from a Prospective, Multicenter, Randomized, Controlled Clinical Trial Evaluating Anular Repair after Lumbar Discectomy
R. Guyer1, S. Blumenthal1, A. Bailey2, G. Amundson2, M. Chedid3, J.S. Gerdes4, J. Messer5, S.L. Griffith6, Anulex Anular Repair Clinical Investigators Group
1Texas Back Institute, Plano, TX, USA, 2Heartland Spine and Specialty Hospital, Overland Park, KS, USA, 3Henry Ford Hospital, Detroit, MI, USA, 4St Cloud Hospital, St Cloud, MN, USA, 5Anulex Technologies Inc., Minnetonka, MN, USA

8:28 a.m. - 8:34 a.m.  
Abstract: 407
Effects of Local Anesthetic and Nonionic Contrast Agents on Bovine Intervertebral Disc Cells Cultured in Alginate
H. An1, J. Ren1, Y. Zhang1, A. Chee1
1Rush University Medical Center, Chicago, IL, USA

8:35 a.m. - 8:45 a.m.  
DISCUSSION

8:45 a.m. - 9:15 a.m.  
*Dr. Errico’s Presidential Address
*This is non-CME

9:15 a.m. - 10:45 a.m.  
Gov. Michael Leavitt
Dr. Uwe Reinhardt
11:42 a.m. - 11:48 a.m.

Abstract: 322
Comparing of Hybrid Arthroplasty, Fusion Surgery and Total Disc Replacement for the Treating of Two-level Cervical Degenerative Disease
C.Y. H. Kao,1 1CHIME Foundation Hospital, Department of Surgery, Yung Kang City, Taiwan, Republic of China

11:49 a.m. - 12:00 p.m.

DISCUSSION

12:00 p.m. - 2:00 p.m.

INDUSTRY WORKSHOPS

2:00 p.m. - 3:15 p.m.

SYMPOSIUM IV

“Avoiding Complications in Complex Spinal Surgery”
Moderator: Gunnar Andersson, MD, PhD

• Biomechanical considerations and limitations of motion preservation
  Lisa Ferrara, PhD

• Complications and avoidance with posterior motion preservation devices
  Paul McAfee, MD

• Complications and avoidance with TDR
  Jean-Charles Le Huec, MD, PhD

• Complications and avoidance in osteoporotic bone
  Scott Blumenthal, MD

• Complications and avoidance in MIS surgery
  Kern Singh, MD

3:15 p.m. - 3:45 p.m.

BREAK

3:45 p.m. - 5:00 p.m.

INNOVATIVE TECHNOLOGIES

Moderators: Thierry Marnay, MD; Jeff Fischgrund, MD

3:45 p.m. - 3:51 p.m.

Abstract: 458
Two Year Follow-up Results from the US IDE Feasibility of NUBAC, an Articulating PEEK on PEEK Nucleus Replacement Device
D. Coric,1 J. Regan2, M.N. Songer1,4,5 1Charlotte Spine Center, Charlotte, NC, USA, 2Cedars Sinai Institute for Spinal Disorders, Los Angeles, CA, USA, 3Michigan Technological University, Mechanical Engineering, Houghton, MI, USA, 4Michigan State College of Human Medicine, Surgery, Lansing, MI, USA, 5Orthopaedic Surgery Associates of Marquette Orthopedics, Marquette, MI, USA

3:52 p.m. - 3:58 p.m.

Abstract: 250
Posterior Disc Arthroplasty: Clinical Results from a Prospective Study
T. Zorzi1, A. Bucciero,1 G.A. Piscopo,1 G. Nicosia,1 A. Zaccariello1 1Pineta Grande Hospital, Department of Neurosurgery, Castel Vultorno, Italy

3:59 p.m. - 4:05 p.m.

Abstract: 227
A Long Term Clinical Experience with Three Different Nucleus Replacement Devices – Lessons Learned after 9 Years Follow up
L. Pimentel,1 L. Marchi,1 E. Coutinho1, L. Oliveira1,2 1Instituto de Patologia da Coluna, São Paulo, Brazil, 2University of California San Diego, Neurosurgery, San Diego, CA, USA, 3Universidade Federal de São Paulo, Radiology, São Paulo, Brazil

4:06 p.m. - 4:12 p.m.

Abstract: 161
50-Patient European Study of a Viscoelastic Total Disc Replacement
B. Rischke1, R.S. Ross2, B. Joellenbeck2 1DRK Kliniken Westend Berlin, Berlin, Germany, 2BUPA Hospital, Manchester, United Kingdom, 3Otto-Von-Guericke University, Magdeburg, Germany

4:13 p.m. - 4:19 p.m.

DISCUSSION

4:20 p.m. - 4:26 p.m.

Abstract: 126
Modified Magnetic Resonance Spectroscopy for the Diagnosis of Painful and Non-painful Lumbar Intervertebral Discs
D.S. Bradford1, J.C. Lotz2, J. Peacock1, S. Hu1, J. Claude2, S.H. Berven1 1University of California San Francisco, Department of Orthopedic Surgery, San Francisco, CA, USA, 2Nocimed, Redwood City, CA, USA

4:27 p.m. - 4:33 p.m.

Abstract: 201
T1p-weighted MRI and Opening Discography Pressure are Quantitative Biomarkers of Disc Degeneration in Patients
P.M. Maurer1, A. Borthakur1, D.M. Elliott2, M. Fenty3, W.R.T. Witschey4, J. Yoder5, A. Singh6 1Orthopaedic, Philadelphia, PA, USA, 2University of Pennsylvania School of Medicine, Center for Magnetic Resonance & Optical Imaging, Department of Radiology, Philadelphia, PA, USA, 3University of Pennsylvania School of Medicine, McKay Orthopaedic Research Laboratory, Department of Orthopaedic Surgery, Philadelphia, PA, USA

4:34 p.m. - 4:40 p.m.

Abstract: 489
Development of a Diamond Composite Material for Total Disc Replacement Bearings Enables Non-Congruent Articulations Emulating Physiologic Kinematics
J.K. Taylor1,2, B.N. Nguyen1, D. Harding1, G. Loesener1, V. Singhc1, R. Dixon1, B.J. Popea1, S. Despresb 1Sacramento VA Medical Center, Orthopaedic Surgery, Loomis, CA, USA, 2Dimicro, Inc, Science and Technology, Orem, UT, USA, 3Dimicro, Inc, Spine Development, Orem, UT, USA, 4Dimicro, Inc, Research and Development, Orem, UT, USA

4:41 p.m. - 4:47 p.m.

Abstract: 472
Accelerated Mitigation of Infection Due to Spinal Implants or Wound by Novel Phototoxic Nanomats and Nanocoatings
R. Hershey1, A.M. Azad1,2, V. Goel1, A. Biyani3, N. Ebraheim3, H. Serhan3 1University of Toledo, Department of Chemical Engineering, Toledo, OH, USA, 2University of Toledo, Engineering Center for Orthopaedic Research Excellence (ECORE), Departments of Bioengineering and Orthopaedic Surgery Colleges of Engineering and Medicine, Toledo, OH, USA, 3DePuy Spine, Raynham, MA, USA

4:48 p.m. - 5:00 p.m.

DISCUSSION

11:49 a.m.
8:00 a.m. - 9:45 a.m.

POSTERIOR DYNAMIC STABILIZATION

Moderators: Stephen Hochschuler, MD; C.K. Park, MD, PhD

8:00 a.m. – 8:06 a.m.

Abstract: 353

Evaluation of Polyethylene Terephthalate (PET) Cords from Retrieved Posterior Dynamic Stabilization Systems

S.M. Kurtz,1,2 A. Iannuzzi1,2 M. Olsen1, A. Ooi1, R. Ross1, T. Lamman1, J. Isaza1

1Exponent, Inc., Philadelphia, PA, USA, 2Drexel University, Philadelphia, PA, USA, 3Hospital, Manchester, United Kingdom, 4Center City Doctors Hospital, Beverly Hills, CA, USA, 5Baton Rouge Orthopaedic Clinic, Baton Rouge, LA, USA

8:07 a.m. - 8:13 a.m.

Abstract: 452

Degenerative Spondylolisthesis

S.W. Hong1, K.H. Kim1, H.Y. Lee2, S.H. Lee2

1Woordul Spine Hospital, Orthopedic Surgery, Seoul, Korea, Republic of, 2Woordul Spine Hospital, Neurosurgery, Seoul, Korea, Republic of

8:14 a.m. - 8:20 a.m.

DISCUSSION

8:21 a.m. - 8:27 a.m.

Abstract: 9

Survivorship Analysis of Interspinous Spacer for Treatment of Lumbar Spinal Stenosis and Disc Herniation

J.B. Park1, C. G. Kong1, H.Y. Won1

1The Catholic University of Korea, Uijeongbu, Korea, Republic of

8:28 a.m. - 8:34 a.m.

Abstract: 2

The Diam Interspinous Stabilization for Low Back Pain: 5 Years Follow-up

J. Buric1, M. Pulidori1

1CDC Villanova, Functional Unit for Spinal Surgery, Florence, Italy

8:35 a.m. - 8:41 a.m.

Abstract: 253

Functional Dynamic Stabilization in Lumbar Spinal Stenosis with COFLEX™ Interspinous Implant – Min. 3-year Results

R. Bertagnoli1

1ProSpine, Straubing, Germany

8:42 a.m. - 8:48 a.m.

DISCUSSION

8:56 a.m. - 9:02 a.m.

Abstract: 255

3-year Results from a Prospective, Randomized IDE Study of the Dynesys™ Dynamic Stabilization System

R.J. Davis1, R. Delamarter2, J. Maxwell3, S. John4, W. Williams5, J. Wingate6

1Greater Baltimore Medical Center, Neurosurgery, Towson, MD, USA, 2The Spine Institute, Santa Monica, CA, USA, 3Scottsdale Spine Care, Scottsdale, AZ, USA, 4Twin Cities Orthopedics, Eden, MN, USA, 5University of Pennsylvania, Philadelphia, PA, USA, 6Spine Center, Warren, MI, USA

9:03 a.m. - 9:09 a.m.

Abstract: 155

Clinical Outcomes for Worldwide Cohort of 106 Lumbar Spinal Stenosis Patients Treated with ACADIA™


9:10 a.m. - 9:16 a.m.

DISCUSSION

9:17 a.m. - 9:23 a.m.

Abstract: 172

Clinical Outcomes after Posterior Dynamic Transpedicular Stabilization with Limited Lumbar Discectomy: Carragee System Classification of Lumbar Disc Herniations

T. Kaner1, M. Sasani2, T. Oktenoglu3, M. Olsen3

1American Hospital, Istanbul, Turkey, 2Canakkale 18 March University, Faculty of Medicine, Canakkale, Turkey

9:24 a.m. - 9:30 a.m.

Abstract: 301

Clinical Assessment of Adjacent Level Effects (ALE) Induced by Stabilimax Lumbar Posterior Dynamic Stabilization (PDS) Implant through Measurement of Range of Motion (ROM) and InterPedicular Travel (IPT)

S.H. Kitchel1, N.C. Wharton2, A.C. Khandha3

1Oregon Health and Sciences University, Department of Orthopedic Surgery, Eugene, OR, USA, 2Medical University InnsbruckMetrics, Inc, Houston, TX, USA, 3Applied Spine Technologies, Rocky Hill, CT, USA

9:31 a.m. - 9:37 a.m.

Abstract: 251

Surgical Results of Non-fusion Stabilization with SSS System for Degenerative Lumbar Spinal Diseases with Instability - Minimum 2 Year Follow-up

H. Ohta1, Y. Matsumoto1, U. Morishita1, G. Huang1, H. Kida1, Y. Takemitsu1

1Oita Orthopaedic Hospital, Orthopaedic, Oita, Japan

9:38 a.m. - 9:44 a.m.

DISCUSSION
9:45 a.m. - 10:00 a.m.
AWARDS CEREMONY

10:00 a.m. - 10:45 a.m.
BREAK

10:45 a.m. - 12:00 p.m.
Symposium V
“Show Me the Data: Should We Be Operating on Low Back Pain?”
Moderator: Jeffrey Goldstein, MD

Case 1 - Single Level Degenerative Disc Disease
Pro: Matthew Gornet, MD
Con: Scott Hodges, DO

Case 2 - Degenerative Scoliosis
Pro: Frank Schwab, MD
Con: Scott Kitchel, MD

12:00 p.m. - 1:00 p.m.
SAS10 DEPARTURE PARTY

1:00 p.m. - 3:00 p.m.
LUMBAR TDR/CERVICAL TDR:
Lightning Round
Moderators: Karin Büttner-Janz, MD, PhD; Scott Blumenthal, MD

1:00 p.m. - 1:04 p.m.
Abstract: 76
Clinical Results of Total Lumbar Disc Replacement Regarding to Various Aetiologies of Disc Degeneration: A Study with a 2 Year Follow-up
B. Blondel1, P. Tropiano1, J. Allain1, T. Marnay2
1Université de la Méditerranée, Orthopaedic Surgery, Marseille, France,
2Clinique du Parc, Orthopaedic Surgery, Montpellier, France

1:05 p.m. - 1:09 p.m.
Abstract: 471
Total Lumbar Disc Replacement: Comparison of Clinical and Radiological Outcomes between L4L5 and L5S1 Levels
J. Délecrin1, J. Allain2, J.P. Steib1, J. Beaurain1, T. Dufour1, J. Huppert1, H. Chataigner1, L. Aubourg2, J.M. Nguyen3
1University Hospital, Nantes, France, 2University Hospital, Creteil Paris, France, 3University Hospital, Strasbourg, France

1:10 p.m. - 1:14 p.m.
Abstract: 307
Does the Presence and Location of Annular Defects Influence Clinical Outcomes Following Lumbar Total Disc Arthroplasty? A Prospective Study
J. Yue1, S. Hermenau2, C. Telles1, R. Ramachandran2
1Yale University School of Medicine, Orthopaedic Surgery, New Haven, CT, USA, 2Yale University School of Medicine, New Haven, CT, USA

1:15 p.m. - 1:19 p.m.
Abstract: 479
Comparison of Single Level L4-L5 versus L5-S1 Lumbar Disc Replacement: Results and Prognostic Factors
R. Sinigaglia1, U. Nena2, D.A. Fabris Monterumici2
1Padua University, Padova, Italy, 2Padua University Hospital, Padua, Italy

1:20 p.m. - 1:24 p.m.
Abstract: 56
Cost Comparison of Total Disc Replacement vs. Fusion in Patients with Insurance Denial for Disc Replacement
D.D. Ohnmeiss1, C.S Hume1, R.D. Guyer2, J.E. Zigler2, S.L. Blumenthal2
1Texas Back Institute Research Foundation, Plano, TX, USA, 2Texas Back Institute, Plano, TX, USA

1:25 p.m. - 1:29 p.m.
Abstract: 58
Analysis of Adjacent Segment Re-operation Following Lumbar Total Disc Replacement
S.L. Blumenthal1, S. Rainey1, D.D. Ohnmeiss1, J.E. Zigler2, R.D. Guyer2
1Texas Back Institute Research Foundation, Plano, TX, USA, 2Texas Back Institute, Plano, TX, USA

1:30 p.m. - 1:36 p.m.
DISCUSSION

1:37 p.m. - 1:41 p.m.
Abstract: 287
Effect of Operative Level and Lumbar TDR Design on Disc Height, Settling, and Subsidence: A Prospective Randomized Study Comparing an Unconstrained, Semi-constrained, and Constrained Implant
R. Garcia1, J. Yue1, P. Newman1, N. Wharton1, J. Hipp1
1Orthopedic Care Center, Aventura, FL, USA, 2Yale University School of Medicine, Orthopedic Surgery, New Haven, CT, USA, 3Medical Metrics, Inc, Houston, TX, USA

1:42 p.m. - 1:46 p.m.
Abstract: 306
The Influence of Total Disc Arthroplasty Baseplate Design on Anterior/Posterior Endplate Loading
A. Valdevit1,2, K. Verma1, T. Errico1, A. Rajadhyaksha1, J. Kamerlink1, S. Xavier1, E. Knee2
1NYU Hospital for Joint Diseases, New York, NY, USA, 2The Stevens Institute of Technology, Biomedical Engineering, Hoboken, NJ, USA

1:47 p.m. - 1:51 p.m.
Abstract: 82
Quantitative Comparison of UHMWPE Wear Particles Generated from ProDisc-L Total Disc Replacements Tested under ISO and ISO Plus Anterior-posterior Shear Inputs
J.L. Tipper1, R.E. Vicars1, J. Fisher1, E. Ingham1, R.M. Hall1, T.D. Brown2
1University of Leeds, Institute of Medical & Biological Engineering, Leeds, United Kingdom, 2University of Iowa, Department of Orthopaedics & Rehabilitation, Iowa City, IA, USA

Friday, April 30, 2010
Friday, April 30, 2010

1:52 p.m. - 1:56 p.m.
Abstract: 309
The Influence of Total Disc Arthroplasty Baseplate Design on Energy Transfer to the Vertebral Endplate
1The Stevens Institute of Technology, Biomedical Engineering, Hoboken, NJ, USA, 2NYU Hospital for Joint Diseases, New York, NY, USA

1:57 p.m. - 2:01 p.m.
Abstract: 95
Blood Metal Ion Levels Following Implantation of the All-metal FlexiCore® Lumbar Intervertebral Disc Replacement, 24-36 Month Follow-up
J.R. Stieber, T.J. Errico, T. Bauer, C. Whitaker, G. Miz, R. Sasso
1St. Luke's Roosevelt Hospital, Orthopaedic Surgery, New York, NY, USA, 2NYU Hospital for Joint Diseases, Division of Spine Surgery, New York, NY, USA, 3The Cleveland Clinic Foundation, Depts of Pathology, Orthopedic Surgery and the Spine Institute, Cleveland, OH, USA, 4Kansas Joint & Spine Institute, Wichita, KS, USA, 5Bone and Joint Physicians, Oak Lawn, IL, USA, 6Indiana Spine Group, Indianapolis, IN, USA

2:02 p.m. - 2:06 p.m.
Abstract: 165
Facet Joint Biomechanics at the Treated and Adjacent Levels after Total Disc Replacement
1University of Colorado Denver, Orthopaedics, Aurora, CO, USA, 2Colorado State University, Ft. Collins, CO, USA, 3Colorado School of Mines, Golden, CO, USA, 4Synthes Spine, West Chester, PA, USA

2:07 p.m. - 2:13 p.m.
DISCUSSION

Moderators: Anthony Fabrizi, MD; Rolando Garcia, MD

2:14 p.m. - 2:18 p.m.
Abstract: 315
The Predisposing Factors for the Heterotopic Ossification after Cervical Arthroplasty
S. Yi
1Spine and Spinal Cord Institute, Yonsei University, College of Medicine, Neurosurgery, Seoul, Korea, Republic of

2:19 p.m. - 2:23 p.m.
Abstract: 244
Heterotopic Ossification Following Cervical Total Disc Replacement: Iatrogenic or Constitutional?
C. K. Park, K.S. Ryu
1Seoul St. Mary's Hospital, the Catholic University of Korea, Department of Neurosurgery, Seoul, Korea, Republic of, 2Seoul St. Mary's Hospital, the Catholic University of Korea, Seoul, Korea, Republic of

2:24 p.m. - 2:28 p.m.
Abstract: 300
A Comparison of Prodisc-C and Mobi-C Artificial Discs in Heterotopic Ossification after Cervical Arthroplasty
1The Leon Wiltse Memorial Hospital, Neurosurgery, Suwon, Korea, Republic of

2:29 p.m. - 2:35 p.m.
DISCUSSION

SAS CONCLUDES