35th Annual Meeting of the International Society for Minimal Intervention in Spinal Surgery

Presented by the International Society for Minimal Intervention in Spinal Surgery and the North American Spine Society
in collaboration with the World Federation of Neurosurgical Societies

January 18-20, 2017
Swissôtel
Chicago, IL

Wednesday, January 18, 2017
7:00-8:00 a.m.
Hands-on course Registration
Zurich Foyer

8:00 a.m.
Attendee shuttle departs for Ticketed Session: Hands-on Cadaver Course in Current Techniques in Minimally Invasive Spine Surgery
Swissôtel Event Center Entrance (located just past the front desk, before the escalators that lead to the Zurich Ballroom)

9:00 a.m.-2:00 p.m.
Ticketed Session: Hands-on Cadaver Course in Current Techniques in Minimally Invasive Spine Surgery
Specialty Education and Research Center (SERC)

This hands-on cadaver course will focus on the major currently available minimally invasive surgical techniques, including transforaminal discectomy, lateral transforaminal fusion, cervical microendoscopic discectomy, lumbar microendoscopic discectomy, transforaminal lumbar interbody fusion, and lateral lumbar interbody fusion. Using a state-of-the-art facility, these techniques will be taught by the world’s experts in each of these techniques.

Upon completion of the course, participants will gain strategies to:

- Utilize transforaminal lumbar interbody fusion (TLIF) and other advanced minimally invasive spine surgery procedures.
- Perform challenging cases that include multilevel decompression and instrumentation as well as challenging levels to access.
- Identify postoperative complications and their management.
NASS designates this live activity for a maximum of 4 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

3:00-6:00 p.m.
Registration
Zurich Foyer

6:00-8:00 p.m.
Welcome Reception (Open to all Attendees and Exhibitors)
Edelweiss

Thursday, January 19, 2017
7:00 a.m.-5:00 p.m.
Registration
Zurich Foyer

8:00 a.m.-5:00 p.m.
Technical Exhibition
Zurich ABC

8:25-8:30 a.m.
Welcome/Announcements
Zurich DEFG

8:30-10:30 a.m.
Plenary Session I: ISMISS Symposium
Zurich DEFG

This session will review the various minimally invasive surgical approaches available for lumbar disc herniation, lumbar spinal stenosis and lumbar fusion.

Upon completion of this session, participants will gain strategies to:
- Select the optimal surgical procedure for lumbar disc herniation;
- Inform patients of the results and complications of surgery for lumbar spinal stenosis;
- Utilize different surgical techniques for lumbar fusion.

**MIS Surgery for Lumbar Disc Herniation**
8:30-8:45 a.m.  Endoscopic Transformaminal Approach: Anatomy, Techniques, Results, Complications
Hansjörg Leu, MD

8:45-9:00 a.m.  Tubular Approach: Anatomy, Techniques, Results, Complications
Alfred T. Ogden, MD

**MIS Surgery for Lumbar Stenosis**
9:00-9:15 a.m.  Endoscopic Decompression: Technique and Results
Stefan. Hellinger, MD
9:15-9:30 a.m.  Tubular Decompression: Technique and Results  
Robert E. Isaacs, MD

9:30-9:45 a.m.  Complications and Revisions  
Richard Fessler, MD, PhD

**MIS Surgery for Lumbar Fusion**

9:45-10:00 a.m.  Endoscopic Interbody Fusion: Technique and Results  
Michael Y. Wang, MD

10:00-10:15 a.m.  Tubular Posterior Interbody Fusion: Technique and Results  
Jose A. Soriano-Sanchez, MD

10:15-10:30 a.m.  Lateral Interbody Fusion: Technique and Results  
Adam S. Kanter, MD

10:30-11:00 a.m.  
**Networking Break**  
Zurich ABC

11:00 a.m.-12:00 p.m.  
**Plenary Session II: Abstract Presentations**  
Zurich DEFG  
Moderator(s): TBD

11:00 – 11:06 a.m.  
1. Multiexpandable Cages for Minimally Invasive Posterior/Transforaminal Lumbar Interbody Fusion: A Preliminary Report  
**Donald Kucharzyk, DO**¹; Jeffrey D. Coe, MD²; Kornelis A. Poelstra, MD, PhD³; Joshua M. Ammerman, MD⁴; Sandeep Kunwar, MD⁵  

11:06 – 11:12 a.m.  
2. In-vivo Endoscopic Visualization of Pain Generators in the Lumbar Spine  
**Anthony T. Yeung, MD**  
Desert Institute for Spine Care, Phoenix, AZ, US

11:12 – 11:18 a.m.  
3. Initial Experience with a Novel Robotically Operated Videoscope in Lumbar Decompression Procedures using the METRx tube system  
**Thomas M. Doers, MD**¹; Sarika Walia, MD²; Maharaj Singh, PhD³  
¹Aurora Healthcare, Milwaukee, WI, US; ²Aurora Neurosciences Innovation Institute, Milwaukee, WI, US; ³Aurora Research Institute, Milwaukee, WI, US

11:18 – 11:24 a.m.  
4. A Comparative Clinical Study of Full-endoscopic Interlaminar Discectomy for L4/L5 versus L5/S1 Lumbar Disc Herniation  
**Yawei Li, MD, PhD**  
The 2nd Xiangya Hospital, Central South University, Changsha, China

11:24 – 11:30 a.m.  
5. Contralateral Radiculopathy following Minimally Invasive Transforaminal Lumbar Interbody Fusion
Limin Rong, MD, PhD
The 3rd Affiliated Hospital of Sun Yat-sen University, Guangzhou, GuangDong, China

11:30 – 11:36 a.m.
6. Modified Cervical Micro Endoscopic Laminoplasty for Patients with Cervical Spondylotic Myelopathy
   Chunlin Zhang, MD
   The First Affiliated Hospital of Zhengzhou University, Zhengzhou, Henan, China

11:36 – 11:42 a.m.
7. Burst Stimulation with Penta Electrode for Failed Back Surgery Syndrome FBSS
   Enrique Osorio, MD

11:42 a.m. – 12:00 p.m.
Discussion

12:00-1:00 p.m.
Lunch
Zurich ABC

1:00-2:30 p.m.
Plenary Session III: Abstract Presentations
Zurich DEFG
Moderator(s): TBD

1:00 – 1:06 p.m.
8. Minimally Invasive Correction of Adult Degenerative Deformity: Preliminary Follow-up and EOS Study
   Pei Yu, MD; Wenjian Wu, MD; Liang Yu, MD
   Shanghai Ruijin Hospital, Shanghai, China

1:06 – 1:12 p.m.
9. Treatment of Symptomatic Spinal Stenosis with the Transforaminal Endoscopic Approach
   Anthony T. Yeung, MD
   Desert Institute for Spine Care, Phoenix, AZ, US

1:12 – 1:18 p.m.
10. Percutaneous Endoscopic Surgery to Manage Lumbar Highly Grade Migrated Disc Herniation
     Shaokeh Hsu, MD
     Tungs' Taichung MetroHarbor Hospital, Taichung, Taiwan

1:18 – 1:24 p.m.
11. Alternative to Fusion with a Hybrid Minimally Invasive Foraminal Decompression and Endoscopic Rhizolysis Procedure
     Anthony T. Yeung, MD
     Desert Institute for Spine Care, Phoenix, AZ, US

1:24 – 1:30 p.m.
12. The Application of Lateral Recess Partition Method in Spinal Endoscopic Transforaminal Approach to Treat the Lumbar Lateral Recess Stenosis
     Qingquan Kong, MD
     West China Hospital of Sichuan University, Chengdu, Sichuan, China
1:30 – 1:45 p.m.
Discussion

1:45 – 1:51 p.m.
Qingquan Kong, MD
West China Hospital of Sichuan University, Chengdu, Sichaun, China

1:51 – 1:57 p.m.
14. Percutaneous Endoscopic Decompression for the Lumbar Canal Stenoses
Fujio Ito, MD, PhD
Aichi Spine Institute, Niwa-gun, Aichi-ken, Japan

1:57 – 2:03 p.m.
15. A Biomechanical Analysis of Lateral Interbody Implants and Supplemental Fixation in Adjacent Segment Disease
Craig McMains, MD¹; Nikhil Jain, MBBS, MD²; Elizabeth Yu, MD³
¹Stanford University, Redwood City, CA, US; ²Columbus, OH, US; ³The Ohio State University Wexner Medical Center, Columbus, OH, US

2:03 – 2:09 p.m.
Anthony T. Yeung, MD
Desert Institute for Spine Care, Phoenix, AZ, US

2:09 – 2:15 p.m.
17. MIS-TLIF for the Treatment of Mild to Moderate Isthmic Spondylolisthesis: Is Direct Decompression of Exiting Nerve Necessary?
Wenjian Wu, MD; Liang Yu, M²
Shanghai Ruijin Hospital, Shanghai, China

2:15 – 2:30 p.m.
Discussion

2:30-3:00 p.m.
Networking Break
Zurich ABC

3:00-4:35 p.m.
Plenary Session IV: Case-based Debates
Zurich DEFG

This session will provide critical comparisons of the minimally invasive surgical approaches to lumbar disc herniation, lumbar spinal stenosis and lumbar degenerative spondylolisthesis.

Upon completion of this session, participants will gain strategies to:
• Contrast the advantages and disadvantages of surgical approaches for lumbar disc herniation, lumbar stenosis and lumbar fusion;
- Explain to patients the rationale behind the selection of surgical technique for lumbar disc herniation, lumbar stenosis and lumbar fusion;
- Improve complication avoidance and management after surgical techniques for lumbar disc herniation, lumbar stenosis and lumbar fusion.

**Lumbar Disc Herniation: Transforaminal vs. Tubular Discectomy**
3:00-3:10 p.m. Transforaminal
  
  Anthony T. Yeung, MD

3:10-3:20 p.m. Tubular
  
  Kevin T. Foley, MD, FACS

3:20-3:25 p.m. Rebuttal/Discussion

**Lumbar Stenosis: Endoscopic vs. Tubular Decompression**
3:30-3:40 p.m. Transforaminal
  
  Pil Sun Choi, MD

3:40-3:50 p.m. Tubular
  
  Larry T. Khoo, MD

3:50-3:55 p.m. Rebuttal/Discussion

**Lumbar Stenosis & Degenerative Spondylolisthesis: Endoscopic vs. Tubular vs. Lateral**
4:00-4:10 p.m. Endoscopic Fusion
  
  Jeffrey L. Katzell, MD

4:10-4:20 p.m. Tubular TLIF
  
  Faheem Sandhu, MD

4:20-4:30 p.m. MIS Lateral Interbody Fusion
  
  Luiz Pimenta, MD, PhD

4:30-4:35 p.m. Rebuttal/Discussion

**Friday, January 20, 2017**
7:00 a.m.-5:00 p.m.

**Registration**
Zurich Foyer

8:00 a.m.-3:00 p.m.

**Technical Exhibition**
Zurich ABC

8:25-8:30 a.m.

**Welcome/Announcements**
Zurich DEFG

8:30-10:35 a.m.

**Plenary Session V: NASS Symposium**
Zurich DEFG

This session will review the minimally invasive surgical options for the treatment of cervical radiculopathy and disc herniation. The session will also present minimally invasive surgical strategies for managing spinal trauma, spinal column tumors, spinal cord tumors, and adult degenerative scoliosis.
Upon completion of this session, participants will gain strategies to:

- Select the optimal surgical procedure for cervical radiculopathy and disc herniation;
- Improve complication rates and perioperative variables in the surgical treatment of spinal trauma;
- Provide patients with spinal tumors surgical procedures with reduced morbidity.

**MIS Surgery for Cervical Radiculopathy**

8:30-8:45 a.m.  
Posterior Endoscopic Cervical Discectomy: Technique and Results  
**James J. Yue, MD**

8:45-9:00 a.m.  
Post-tubular Cervical Discectomy: Technique and Results  
**Mick J. Perez-Cruet, MD**

9:00-9:15 a.m.  
The Endoscopic Microsurgery to Treat the Degenerative Conditions of the Cervical Spine: An Advantage in Spinal Surgery  
**Andrea Fontanella, MD**

**Advanced MIS Surgical Applications**

9:15-9:35 a.m.  
MIS Surgery for Spinal Trauma: Technique and Results  
**Sheeraz A. Qureshi, MD, MBA**

9:35-9:55 a.m.  
MIS Surgery for Vertebral Body Tumors: Technique and Results  
**John E. O’Toole, MD, MS**

9:55-10:15 a.m.  
MIS Surgery for Intradural Tumors: Technique and Results  
**Trent L. Tredway, MD**

10:15-10:35 a.m.  
Adult Degenerative Scoliosis Correction: Technique and Results  
**Paul Park, MD**

10:35-11:00 a.m.  
Networking Break  
**Zurich ABC**

11:00 a.m.-12:00 p.m.  
**Plenary Session VI: Abstract Presentations**  
**Zurich DEFG**  
Moderator(s): TBD

11:00 – 11:06 a.m.
18. EVOLVE: A Prospective and Multicenter Evaluation of Outcomes for Quality of Life, Pain and Activities of Daily Living following Balloon Kyphoplasty Treatment of Medicare Eligible Subjects with Vertebral Compression Fractures  
**Melissa Chambers, MD, DVM¹; Douglas P. Beall, MD²; Bradley S. Goodman, MD³**  
¹University of Alabama at Birmingham, Birmingham, AL, US; ²Clinical Radiology of Oklahoma, Edmond, OK, US; ³Alabama Ortho & Spine Center, Birmingham, AL, US

11:06 – 11:12 a.m.
19. Evaluation of Transformaminal Endoscopic Discectomy in the Treatment of Obese Patients with Lumbar Disc Herniation  
**Wei Zhang, MD, PhD**  
Department of Spinal Surgery, The Third Hospital of Hebei Medical University, Shijiazhuang City, China

11:12 – 11:18 a.m.
20. Isocentric Navigation Improves the Learning Curve of Transforaminal Percutaneous Endoscopic Lumbar Discectomy
Guoxin Fan, MD; Shisheng He, MD
Shanghai Tenth People’s Hospital, Shanghai, China

11:18 – 11:24 a.m.
21. Surgical Posterior Only Treatment of Dumbbell-type Thoracic Cord Tumor versus Combined Laminectionomy and Thoracoscopic Surgery
Yawei Li, MD, PhD
The 2nd Xiangya Hospital, Central South University, Changsha, China

11:24 – 11:30 a.m.
22. Radiation Reduction of Minimally Invasive Transforaminal Lumbar Interbody Fusion in Overweight Patients: A Prospective Control Study
Guoxin Fan, MD; Shisheng He, MD
Shanghai Tenth People’s Hospital, Shanghai, China

11:30 – 11:36 a.m.
23. Application of Navigation Rod for the Location and Puncture of Percutaneous Endoscopic Lumbar Discectomy
Tan Haitao; Huang Shengbin, MD
Guigang City People’s Hospital, Guigang, China

11:36 – 11:42 a.m.
24. The Role of Lumbar Facet Arthrosis in Minimal Invasive Spine Surgery
Volodymyr Radchenko Sr., MD, PhD
Sytenko Institute of Spine, Kharkiv, Ukraine

11:42 – 11:48 a.m.
25. Relapsed Hernias After Open Surgery, Treated by Percutaneous Endoscopic Surgery
Daniel Gastambide, MD¹; Frédéric Jacquot²
¹GIEDA Inter Rachis, Paris, France; ²Hopital Saint Antoine, Department of Orthopedic Surgery, Paris, France

11:48 AM – 12:00 p.m.
Discussion

12:00-1:00 p.m.
Lunch
Zurich ABC

1:00-2:30 p.m.
Plenary Session VII: Abstract Presentations
Zurich DEFG
Moderator(s): TBD

1:00 – 1:06 p.m.
26. Failed Back Surgery Syndrome: Endoscopic Documentation of Common Causes by Visualization of Painful Pathoanatomy in the Hidden Zone of the Axilla Containing the Dorsal Root Ganglion and Salvage Treatment of Neuropathic Pain with DRG Neuromodulation
Anthony T. Yeung, MD
Desert Institute for Spine Care, Phoenix, AZ, US
1:06 – 1:12 p.m.
27. Percutaneous Endoscopic Surgery for Stenosis (PESS): A Laser assisted Uniportal Full-endoscopic Decompression of Central and Lateral Recess Lumbar Spinal Stenosis

**TagGeun Jung, MD**
*Nasareit International Hospital, Incheon, Republic of Korea*

1:12 – 1:18 p.m.
28. Comparison of Kyphoplasty Outcomes between Unilateral and Bilateral Approach for Treatment of Osteoporotic Vertebral Compression Fracture

**Xingkai Zhang, MD**

1:18 – 1:24 p.m.
29. Microendoscopy-assisted Minimally Invasive Transforaminal Lumbar Interbody Fusion for Lumbar Degenerative Disease: Short-term and Medium-term Outcomes

**Yang Yang, MD; Limin Rong, MD, PhD**
*The 3rd Affiliated Hospital of SUN Yat-sen University, Guangzhou, GuangDong, China*

1:24 – 1:30 p.m.
30. Radiographic Evaluation of Percutaneous Pedicle Screw Constructs Including Minimally Invasive Facet Fusions for Unstable Spinal Column Injuries

**Daniel L. Cavanaugh, MD**; **Tristan B. Weir, BS**; **Kelley E. Banagan, MD**; **Eugene Y. Koh, MD, PhD**; **Daniel E. Gelb, MD**; **Steven C. Ludwig, MD**

1:30 – 1:45 p.m.
Discussion

1:45 – 1:51 p.m.

**Sandeep Sherlekar, MD; Atif B. Malik, MD; John Thorpe**
*American Spine, Germantown, MD, US*

1:51 – 1:57 p.m.
32. Treatment of Cervical Spinal Stenosis with Percutaneous Full-endoscopic Cervical Partial Laminectomy Under Local Anesthesia

**Bo Zhu, MD**
*The General Hospital of the People's Liberation Army, Beijing, Beijing, China*

1:57 – 2:03 p.m.
33. A Novel Tubular Endoscopic System via the Posterior Approach for Lumbar Interbody Fusion Technical Feasibility and Initial Surgical Outcome

**Yue Zhou, MD, PhD**
*Xinqiao Hospital of the Third Military Medical University, Chongqing, China*

2:03 – 2:09 p.m.
34. Transiliac Approach Intervertebral Endoscopic Discectomy for L5/S1 Intervertebral Disc Herniation

**Wei Zhang, MD, PhD**
*Department of Spinal Surgery, The Third Hospital of Hebei Medical University, Shijiazhuang City, China*
2:09 – 2:15 p.m.
35. Minimally Invasive Full-endoscopic Posterior Cervical Foraminotomy: Preliminary Clinical Results
Chao Zhang, MD, PhD
Xinqiao Hospital, Chong Qing, China

2:15 – 2:30 p.m.
Discussion

2:30-3:00 p.m.
Networking Break
Zurich ABC

3:00-4:40 p.m.
Plenary Session VIII: Case-based Debates
Zurich DEFG

This session will critically compare the various minimally invasive surgical treatments for cervical radiculopathy, intradural spinal tumors and adult spinal deformity.

Upon completion of this session, participants will gain strategies to:

- Implement the most effective surgical treatment for cervical radiculopathy;
- Improve surgical decision-making in the treatment of spinal cord tumors;
- Augment surgical options in the treatment of adult spinal deformity.

Cervical Surgery
3:00-3:15 p.m.  Posterior Endoscopic Foraminotomy is Best
Joachim Oertel, MD

3:15-3:30 p.m.  Posterior Tubular Foraminotomy is Best
Zachary A. Smith, MD

3:30-3:40 p.m.  Rebuttal/Discussion

Intradural Spinal Tumors
3:40-3:50 p.m.  MIS Approaches Are Best
Nader S. Dahdaleh, MD

3:50-4:00 p.m.  Open Approaches Are Best
John C. Liu, MD

4:00-4:10 p.m.  Rebuttal/Discussion

Adult Spinal Deformity
4:10 -4:20 p.m.  Circumferential MIS Approaches Are Best
Neel Anand, MD

4:20-4:30 p.m.  Open Approaches Are Best
Tyler R. Koski, MD

4:30-4:40 p.m.  Rebuttal/Discussion

4:40 p.m.
Meeting Adjourns