

# **SMISS Program Draft 3.0**

## **As of 7/10/18**

### ***Cases and Controversies in Minimally Invasive Spine Surgery***

#### **Thursday, September 6, 2018**

7:00 am – Optional Non-CME Cadaveric Labs  
4:00 pm

MERIN

4:00-6:00 pm Registration Opens

#### **Friday, September 7, 2018**

6:45am Registration

7:30 Non-CME Technology Workshops with Breakfast  
*Participants choose which to attend*

#### **Session 1: Spinal Deformity**

Moderators: G. Mundis, MD & B. Taylor, MD

#### **Controversy: Does Every Patient Benefit from "Ideal" Correction?**

8:30 Welcome

8:35 Age Specific Alignment Goals: Give It to Me Straight, what are the Key Goals I Need to Know for Each Case? S. Berven, MD

#### **Debate: Do We Really Need to Get Patients "Aligned" to Have a Good Long-term Outcome?**

8:43 Case: 75 y/o Female with Modest Degenerative Scoliosis

8:46 Alignment is Overrated N. Anand, MD

8:51 Alignment is Critical to Outcome A. Kanter, MD

8:56 Discussion

9:00 Audience Response

9:03 How Do I Decide Whether MIS, Hybrid, or Open is Best for My Patient? J. Uribe, MD

9:11 Discussion

#### **Debate: Surgical Approach to Degenerative Deformity: Front, Back, Lateral or All Three?**

9:15 Case: 60 y/o Female, PI/LL 20°, SVA 10°, PT 23°

9:18 Posterior Only is Ideal for the Patient M. Wang, MD

9:23 Circumferential MIS Surgery is Best R. Eastlack, MD

9:28 Single Position Lateral Surgery Can Accomplish Everything W. Smith, MD

9:33 Discussion

9:36 Audience Response

	<u>Debate: How Best to Treat L5-S1:</u>	
9:38	Case: Adult Degenerative Scoliosis with DDD L5-S1 No Prior Surgery	
9:41	MIS TLIF	S. Qureshi, MD
9:46	ALIF - Direct Anterior	D. Okonkwo, MD
9:51	Discussion	
9:55	Avoiding L5-S1 in Short Segment Degenerative Scoliosis	I. Lieberman, MD
10:03	Does Multi-Disciplinary Risk Assessment Lead to Better Outcomes?	R. Sethi, MD
10:11	Discussion	
10:15	<u>Panel Discussion:</u> Does Minimally Invasive Spine Surgery Lead to More or Less Complications? Alignment Failure; Implant Non-union Failure; Repeat Surgery	
	Moderator: Drs. Mundis and Taylor	
	Panel: Drs. Phillips, Berven, Park, Mummaneni, Staub	
10:35	Refreshment Break & Exhibit Viewing	<b>Exhibit Hall</b>

## Concurrent Sessions: Free Papers & Young Surgeons' Session

### Session 2A: Degenerative & Lateral Free Papers

Moderators: N. Ashraf, MD & N. Anand, MD

11:05	Paper #1: A Clinical Study to Evaluate Static versus Expandable Lateral Lumbar Interbody Fusion Devices: With One-Year Follow-up <i>Richard Frisch, MD; Daina Brooks, BS; Gita Joshua, MA; and Charles Ledonio; Southeastern Spine Institute, Mt Pleasant, SC</i> <b>Best Paper Award Finalist</b>	
11:09	Paper #2: Static versus Expandable Interbody Devices in Minimally Invasive Transforaminal Lumbar Interbody Fusion: Comparison of Radiographic and Functional Outcomes <i>Benjamin Khechen, BA; Brittany Haws, MD; Dil Patel, BS; Jordan Guntin, BS; Kaitlyn Cardinal, BS; Andrew Block, BS; Kern Singh, MD; Rush, Chicago, IL</i>	
11:13	Paper #3: Immediate Restoration of Lordosis in Single-level Minimally Invasive Transforaminal Lumbar Interbody fusion (MI-TLIF): A comparison of Expandable and Static Interbody Cages <i>Avani Vaishnav, MBBS; Philip Saville, MD; Steven McAnany, MD; Rogertl Hartl, MD; Sertac Kirnaz, MD; Rodrigo Navarro-Ramirez, MD, MSc; Catherine Gang, MPH; Sheerez Qureshi, MD, MBA; Hospital for Special Surgery, New York, NY and Weill Cornell Medicine - New York Presbyterian Hospital, New York, NY</i>	
11:17	Paper #4: Do Expandable Cages Lead to a Higher Incidence of Subsidence? Two-year Follow-up of Lateral Lumbar Interbody Fusions <i>Dan Cohen, MD; Joseph O'Brien, MD; William Tally, MD; Thomas Lee, MD; Torrey Shirk, BA; Gita Joshua, MA; and Charles Ledonio; Spine Care Institute of Miami Beach, Miami Beach, FL; The George Washington University School of Medicine &amp; Health Sciences, Washington, DC; Athens Orthopedic Clinic, Athens, GA; Spinemore Surgical Associates, P.C., St Louis, MO</i>	
11:21	Discussion	

- 11:29 Paper #5: Minimally Invasive Spine Surgery Through Lumbar Decompression: Patient-Reported Outcomes from More than 9,000 Cases  
*Stefan Prada, M.D.; Michael Weiss, D.O.; Stephen Songhurst, B.S.; Chip Wade, Ph.D.; Reginald Davis, M.D.; Laser Spine Institute, Tampa, FL and Auburn University, Auburn, AL*  
**Best Paper Award Finalist**
- 11:33 Paper #6: Minimally Invasive Transforaminal Lumbar Interbody Fusion (MI-TLIF) vs Minimally Invasive Lateral Lumbar Interbody Fusion (MI-LLIF): A comparison of immediate post-operative outcomes for the assessment of decompression  
*Sheerez Qureshi, MD, MBA; Avani Vaishnav, MBBS; Catherine Himo Gang, MPH; Steven McAnany, MD; and Todd Albert, MD; Hospital for Special Surgery, New York, NY*
- 11:37 Paper #7: Employment is Associated with Superior Patient Reported Outcomes Following Minimally Invasive Lumbar Spondylolisthesis Surgery: An Analysis of the Quality Outcomes Database  
*Andrew Chan, MD; Erica Bisson, MD, MPH; Mohamad Bydon, MD; Steven Glassman, MD; Kevin Foley, MD; Eric Potts, MD; Christopher Shaffrey, MD; Mark Shaffrey, MD; Domagoj Coric, MD; John Knightly, MD; Paul Park, MD; Michael Wang, MD; Kai-Ming Fu, MD, PhD; Jonathan Slotkin, MD; Anthony Asher, MD; Panagiotis Kerezoudis, MD; Regis Haid, MD; and Praveen Mummaneni, MD; University of California, San Francisco, San Francisco, CA; University of Utah, Salt Lake City, UT; Mayo Clinic, Rochester, MN; Norton Leatherman Spine Center, Louisville, KY; Semmes-Murphey Neurologic and Spine Institute, Memphis, TN; Goodman Campbell Brain and Spine, Indianapolis, IN; University of Virginia, Charlottesville, VA; Carolina Neurosurgery & Spine Associates, Charlotte, NC; Atlantic Neurosurgical Specialists, Morristown, NJ; University of Michigan, Ann Arbor, MI; University of Miami, Miami, FL; Weill Cornell Medical Center, New York, NY; Geisinger Health System, Danville, PA; and Atlanta Brain and Spine Care, Atlanta, GA*
- 11:41 Paper #8: Preoperative Opioid Use Associated with Worsened Outcomes in Patients Undergoing Stand-alone Lateral Lumbar Interbody Fusion for Degenerative Disc Disease  
*David Salvetti, MD; Alp Ozpinar, MD; Nima Alan, MD; David Okonkwo, MD PhD; Adam Kanter, MD; and D. Kojo Hamilton; University of Pittsburgh, Pittsburgh, PA*
- 11:45 Discussion
- 11:53 Paper #9: Systematic Review Of Facet Tropism As It Relates To Degenerative Disc Disease In The Lumbar Spine: The Overlooked Synovial Joint  
*Fabio Pencil, MBBS; Moawiah Mustafa; Luai Mustafa; Omar Viqar; Zaid Sheikh; and Kingsley Chin, MD; LESS Institute, Hollywood, FL; Florida International University, Miami, FL; and Florida International University, Miami, FL*
- 11:57 Paper #10: Influence of Lumbar Stenosis on Concomitant Sacroiliac Joint Pain: Short-Term and Preliminary Long-Term Results.  
*Konrad Bach, MD; Thomas Freeman, MD; USF, Tampa, FL*
- 12:01 pm Paper #11: Anterior Column Release (ACR) during Lateral Interbody Fusion for Hyperlordotic Segmental Correction  
*Larry Khoo, MD; Roya Gheissari, MS; and Charlie Loeb; Spine Clinic of Los Angeles, Los Angeles, CA; Roya Gheissari, Los Angeles, CA; and Charlie Loeb, Los Angeles, CA*
- 12:05 Paper #12: Minimally Invasive Multilevel Oblique Lumbar Interbody Fusion (OLIF): An Anatomical Single Position Approach for CMIS Correction of Adult Spinal Deformity (ASD)  
*Neel Anand, MD; Edward Nomoto, MD; Christopher Kong, MD; Babak Khandehroo, MD; and Sheila Kahwaty, PA-C; Cedars Sinai Medical Center, Los Angeles, CA*
- 12:09 Discussion

- 12:17 Paper #13: Dynamic Stabilization with Polyetheretherketone (PEEK) Rods: Mid-term Results (5 Years) in Lumbar Spine Degenerative Diseases in a Comprehensive Patients Series-Radiological and Clinical Assessment  
*Ahmet Öğrenci, MD; Neurospinal Academy, Istanbul, Turkey*
- 12:21 Paper #14: Clinical Outcome of OLIF with Percutaneous Posterior Fixation in Lateral Position for Degenerative Spondylolisthesis: Comparison between Elderly and Non-elderly Patients.  
*Y. Koike, Y. Kotani, H. Terao, Y. Hosokawa, H. Kobayasi, Y. Kameda, H. Fukaya; STEEL MEMORIAL MURORAN HOSPITAL, MURORAN-SHI HOKKAIDO, JAPAN.*
- 12:25 Paper #15: Use of Routine Motor-Evoked Potentials (MEPs) is superior to routine running Electromyographic (EMG) and Somatosensory Evoked Potential (SSEP) monitoring during Lateral Lumbar Interbody Fusion (LLIF) procedures for intraoperative detection of postoperative  
*Larry Khoo, MD; Roya Gheissari; Ji Hyun Lee; and Payman Emmanuel; Spine Clinic of Los Angeles, Los Angeles, CA; Roya Gheissari, Los Angeles, CA; Ji Hyun Lee, Los Angeles, CA; and P. Richard Emmanuel MD, Culver City, CA*  
**Best Paper Award Finalist**
- 12:29 Discussion

## Session 2B: Deformity, Trauma & Cervical Free Papers

Moderators: S. McAnany, MD & I. Moss, MD

- 11:05 Paper #16: Does The Percutaneous Dorsal Stabilization Technique For Spinal Fracture Fixation Have A Favorable (protective) Effect On The Muscular-stabilization System Of The Spine? An Emg Consideration Of The Supraspinous- Ligament- Reflex  
*Rene Grass, Prof.Dr. med and Jaroslaw Pyrc, MD; OrthoUniversity Hospital C.G. Carus TU Dresden, Dresden, Germany*
- 11:09 Paper #17: The Impact Of Endplate Fracture On The Clinical Efficacy Of Minimally Invasive Percutaneous Pedicle Screw Fixation For Treatment Of Thoraco-lumbar Vertebra Burst Fractures  
*Yongxin Ren, MD, PHD and Hui Che, master; The First Affiliated Hospital of Nanjing Medical University, Nanjing, China*
- 11:13 Paper #18: Multi-level Cervical Constructs in Clinical Practice Using Integrated Interbody Fusion  
*Jason Garber, M.D., F.A.C.S.; Western Regional Center for Brain and Spine Surgery, Las Vegas, NV*
- 11:17 Paper #19: Evaluation Of Current Trends In Treatment Of Single-level Cervical Radiculopathy  
*Jung Mok; Evan Sheha, MD; Andre Samuel, MD; Steven McAnany, MD; Avani Vaishnav, MBBS; Todd Albert, MD; Catherine Gang, MPH; and Sheeraz Qureshi, MD, MBA; Weill Cornell Medicine, New York, NY and Hospital for Special Surgery, New York, NY*
- 11:21 Discussion
- 11:29 Paper #20: Sway and Neuromuscular Activity Changes in Adult Degenerative Scoliosis Patients Pre and Post Surgery Compared to Controls  
*R. Haddas, I. Lieberman; Texas Back Institute, Plano, TX.*
- 11:33 Paper #21: Proximal Fusion Constructs in MIS Scoliosis Surgery are Successful without Interbody or Intertransverse Fusion  
*S. Burks, J. Godzik, K. Bach, J. Uribe, M. Wang; University of Miami, Miami, FL, Barrow Neurological Institute, Phoenix, AZ.*
- 11:37 Paper #22: The Misdef2 Algorithm: An Updated Algorithm For Patient Selection In Minimally Invasive Deformity Surgery

*kai-ming fu; Praveen Mummaneni; paul park; michael wang; khoi than; Adam Kanter; Dean Chou; Gregory mundis; Robert Eastlack; Juan Uribe; pierce nunley; Richard Fessler; Neel Anand; and Christopher Shaffrey; weill cornell medical center, new york city, NY; UCSF, san francisco, NY; U of Michigan, ann arbor, MI; University of miami, miami, FL; University of Oregon, Portland, OR; UPMC, pittsburg, PA; UCSF, san francisco, CA; San diego spine, San diego, CA; san diego spine, new york city, NY; Barrow, phoenix, AZ; louisiana spine, shreveport, LA; Rush, chicago, IL; LA, Los angeles, CA; and UVA, charlottesville, VA*

- 11:41 Paper #23: Clinical and Radiographic Outcomes of Mini Open Correction and Fusion for Adolescent Idiopathic Scoliosis (AIS): 2-5 Years Follow up  
*D. Singh, M. Geck, E. Truumees, J. Stokes; Seton Spine and Scoliosis Center, Austin, TX.*
- 11:45 Discussion
- 11:53 Paper #24: The Relationship of Static Spinopelvic Parameters with Dynamic Biomechanical Parameters Measured by Gait and Balance Analyses in Patients with Adult Degenerative Scoliosis  
*Ram Haddas; Isador Lieberman, MD; Texas Back Institute, Plano, TX*
- 11:57 Paper #25: Is Achieving Optimal Spinopelvic Parameters Necessary to Obtain Substantial Clinical Benefit: Analysis of Patients Who Underwent Circumferential MIS or Hybrid Surgery With Open Posterior Instrumentation  
*Paul Park, MD; Robert Eastlack, MD; Kai-Ming Fu, MD; Stacie Tran; Gregory Mundis, MD; Juan Uribe, MD; Michael Wang, MD; Khoi Than, MD; David Okonkwo, MD; Adam Kanter, MD; Pierce Nunley, MD; Neel Anand, MD; Richard Fessler, MD; Dean Chou, MD; Praveen Mummaneni, MD; and International Spine Study Group; University of Michigan, Ann Arbor, MI; Scripps Clinic, La Jolla, CA; Weill Cornell, New York, NY; San Diego Spine Foundation, San Diego, CA; Scripps Clinic & San Diego Spine Foundation, San Diego, CA; Barrow Neurological Institute, Phoenix, AZ; University of Miami, Miami, FL; Oregon Health & Science University, Portland, OR; University of Pittsburgh, Pittsburgh, PA; Louisiana Spine Institute, Shreveport, LA; Cedars-Sinai, Los Angeles, CA; Rush University, Chicago, IL; University of California, San Francisco, San Francisco, CA; and International Spine Study Group Foundation, Brighton, CO*
- 12:01 pm Paper #26: The Role of Pelvic Parameters on S2 Alar-Iliac (S2AI) Screw Trajectory  
*Jamal Shillingford, MD; Joseph Laratta, MD; James Lin, MD; Comron Saifi; Steven Ludwig; Lawrence Lenke, MD; and Ronald Lehman, MD; Norton Leatherman Spine Center, Louisville, KY; The Spine Hospital at Columbia University Medical Center, New York, NY; University of Pennsylvania, Philadelphia, PA; and University of Maryland Medical Center, Baltimore, MD*
- 12:05 Paper #27: Navigated Percutaneous Cervical Pedicle Screw Internal Fixation  
*John Pelozo, MD and Meghan Cingrani; Center for Spine Care, Dallas, TX*
- 12:09 Discussion
- 12:17 Paper #28: The Effect of an Expandable Lordotic Interbody Implant to a Fixed Lordotic Interbody Implant in Minimally Invasive Spine Surgery: Its Effect on Sagittal Alignment and Restoration of Disc Height and Foraminal Heights  
*Donald Kucharzyk, DO and Dushan Budimir, BS; DK Orthopedics, Crown Point, IN*
- 12:21 Paper #29: Iliac Screws May Not Be Necessary in Long Segment Constructs with Lumbosacral ALIF: A Cadaveric Study of Stability and Instrumentation Strain  
*Randall Hlubek, MD; Jakub Godzik, MD; Anna Newcomb, MS; Jennifer Lehrman, MS; Bernardo De Andrada Pereira, MD; Brian Kelly, PhD; and Jay Turner, MD, PhD; Barrow Neurological Institute, Phoenix, AZ*

12:25 Paper #30: Impact of Lower Thoracic vs. Upper Lumbar UIV in MIS Correction of Adult Spinal Deformity  
*Robert Eastlack, MD; Pierce Nunley, MD; Juan Uribe, MD; Paul Park, MD; Stacie Tran, MPH; Michael Wang, MD; Khoi Than, MD; David Okonkwo, MD; Adam Kanter, MD; Neel Anand, MD; Richard Fessler, MD; Kai Ming Fu, MD; Dean Chou, MD; Praveen Mummaneni, MD; Gregory Mundis, MD; and International Spine Study Group; Scripps Clinic, San Diego, CA; Louisiana Spine Institute, Shreveport, LA; Barrow Neurological Institute, Phoenix, AZ; University of Michigan, Ann Arbor, MI; San Diego Spine Foundation, San Diego, CA; University of Miami, Miami, FL; Oregon Health & Science University, Portland, OR; University of Pittsburgh Medical Center, Pittsburgh, PA; Cedars Sinai, Los Angeles, CA; Rush University, Chicago, IL; Weill Cornell, New York, NY; University of California, San Francisco, San Francisco, CA; Scripps Clinic & San Diego Spine Foundation, San Diego, CA; and International Spine Study Group Foundation, Brighton, CO*

12:29 Discussion

## Session 2C: Young Surgeons' Free Papers

Moderators: A. Kanter, MD & E. Yu, MD

11:05 YS Paper #31: Age, Number of Vertebral Levels Fused, and Average Psoas Size All Predict Hospital Length of Stay After Minimally Invasive TLIF and LLIF  
*H. Zakaria, M. Macki, L. Massie, V. Chang; Henry Ford Hospital, Detroit, MI, Henry Ford West Bloomfield, West Bloomfield, MI.*

11:08 YS Paper #32: Optimizing Biomechanics Of Anterior Column Realignment (ACR) Constructs: A Cadaveric Study Of Rod Strain And Construct Stability  
*Jakub Godzik, MD; Bernardo de Andrada Pereira, MD; Anna Newcomb, MS; Jennifer Lehrman, MS; Gregory Mundis, MD; Randy Hlubek, MD; Juan Uribe, MD; Brian Kelly, PhD; Jay Turner, MD, PhD; Barrow Neurological Institute, Phoenix, AZ and Scripps, La Jolla, CA*

11:11 YS Paper #33: Maximal Segmental Lordosis Can Be Achieved When Fixating Into One Or Both Vertebral Bodies During Anterior Column Realignment: A Cadaveric Study  
*Jakub Godzik, MD; Bernardo de Andrada Pereira, MD; Anna Newcomb, MS; Jennifer Lehrman, MS; Gregory Mundis, MD; Juan Uribe, MD; Brian Kelly, PhD; Jay Turner, MD, PhD; Barrow Neurological Institute, Phoenix, AZ and Scripps, La Jolla, CA*

11:14 YS Paper #34: Interbody Fusion Rate In Xlif Surgery: A Proposal Of Classification  
*Luca Proietti; Caterina Fumo; Luca Fresta; Andrea Perna; Ilaria Giannelli; Marco Renzi; and Francesco Ciro Tamburrelli; Catholic University of Rome, Italy, Rome, Italy*

11:17 Discussion

11:22 YS Paper #35: Does Dynamic Surgical Guidance (DSG) contribute to Safe and Accurate Pedicle Screws, A Retrospective Collection  
*John Starr, MD and David Powell, MD; George Washington University, Johns Hopkins Medicine at Sibley Memorial Hospital, Washington, DC and Fort Wayne Radiology, Fort Wayne, IN*

11:25 YS Paper #36: Reducing Pedicle Drilling Radiation By Using Dynamic Surgical Guidance With A Jamshidi Needle While Maintaining Screw Placement Accuracy; A Cadaver study  
*John Williams, MD; Larry Khoo, MD; Karim Muradian, MD; and John Gaughan, PhD; Ortho Northeast, Fort Wayne, IN; The Spine Clinic of Los Angeles, LA, CA; MedCure, Bio-skills lab, Henderson, NV; and Temple University, Philadelphia, PA*

11:28 YS Paper #37: Comparison of Segmental Lordosis and Global Spinopelvic Alignment after Single-Level Lateral Lumbar Interbody Fusion or Transforaminal Lateral Interbody Fusion

- 11:31 Y. Saadeh, J. Joseph, B. Smith, M. Kirsch, A. Sabbagh, P. Park; University of Michigan, Ann Arbor, MI.  
 YS Paper #38: A Novel, Single Step Technique to Percutaneously Insert Lumbar Pedicle Screws Significantly Reduces Surgical Time and Radiation Exposure to the Patient and the Surgeon  
Steven DeLuca, DO, MS; Orthopedic Institute of Pennsylvania, Camp Hill, PA
- 11:34 Discussion
- 11:39 YS Paper #39: Single-Level Instrumented Lumbar Interbody Fusion: The Impact of Ambulatory Surgical centers on Evidence-Based Medicine  
Dwight Tyndall, MD; William Zuke, MD; Adam Wright-Chisem, BA; Orthopaedic Specialists of Northwest Indiana, Munster, IL; Department of Orthopaedic Surgery, Cleveland Clinic, Chicago, IL; and University of Illinois College of Medicine, Chicago, IL
- 11:42 YS Paper #40: Minimally Invasive Posterior Fossa Tubular Decompression for the Management of a Chiari 1.5 Malformation: Technical Note, Proof of Concept and Illustrative Case  
J. Soriano-Sánchez, J. Romero-Rangel, S. Soriano-Solis, M. Soto-Garcia, P. Trejo-Huerta; American British Cowdray Medical Center IAP, Mexico City, MEXICO.
- 11:45 YS Paper #41: MIS TLIF Using A Lordotic Interbody Device That Expands In Both Axial And Sagittal Planes  
Hani Malone, MD and Richard Fessler, MD, PhD; Scripps Clinic, La Jolla, CA and Rush University Medical Center, Chicago, IL
- 11:48 YS Paper #42: The Impact of Interbody Location on Segmental Height and Angular Correction in an Expandable Articulating Minimally Invasive Transforaminal Interbody Fusion  
L. Massie, M. Macki, H. Zakaria, V. Chang; Henry Ford Hospital, Detroit, MI.
- 11:51 Discussion
- 11:56 YS Paper #43: An Anatomic Shape Guide to MRI Lumbar Foraminal Stenosis  
G Grady McBride, MD; Orlando Orthopaedic Center, Winter Park, FL
- 11:59 YS Paper #44: The Small Gets Smaller: Feasibility of 14mm Tubular Retractor in the Management of Simple and Complex Cases Of Lumbar Disc Herniations  
Arvind Kulkarni; Mumbai Spine Scoliosis & Disc Replacement Centre, Mumbai, India
- 12:02 YS Paper #45: Cost of Lateral Lumbar Interbody Fusion in the Elderly  
Nima Alan; Andrew Faramand; Nitin Agarwal; David J Salvetti; David K Hamilton; David O Okonkwo; and Adam S Kanter; UPMC, Pittsburgh, PA
- 12:05 YS Paper #46: Fully-endoscopic Bilateral Cervical Laminotomy With Unilateral Approach For Cervical Spinal Stenosis And Myelopathy: A Case Series  
Jian Shen, MD, PhD; Mohaw Valley Orthopedics, PC, Amsterdam, NY
- 12:08 Discussion
- 12:13 Panel: Career Development and Life Balance  
 Moderators: Drs. Wang, Kumar, Khoo, Anderson
- 12:35 Lunch; Exhibit Viewing; Meet-the-Experts Sessions; Young Surgeon Workshop **Exhibit Hall**

## Concurrent Session 3A: Cervical Spine and Cervical Arthroplasty

Moderators: F. Phillips, MD; P. Nunley, MD

### [Controversy: Cervical Arthroplasty is Underutilized.](#)

1:20 Introduction

*Debate: Single Level Middle Aged Patient with Soft Herniated Disc at 5-6 and Unilateral SXS. The Best Option is:*

1:22 Case Example

1:25 TDR

S. Qureshi, MD

1:30 MIS PCMF

K. Foley, MD

1:35 ACDF

H. Bae, MD

1:40 Endoscopic

J. Yue, MD

1:45 Discussion

1:49 Audience Response

1:51 *Case Panel Discussion:* 68 y/o Female, with Osteopenia, Loss of Lordosis, Degen. Disc Collapse, 2 level Dz, Bilateral SXS, Mild Long Tract Signs.  
The Best Option is: Posterior, multilevel; ACDF; Multi level TDR

Panel: Drs. Bae, Foley, Qureshi, Yue

2:06 Audience Response

2:08 Neuromonitoring in Minimally Invasive Cervical Spine Surgery: What's the Value?  
When? Why?

K. Radcliff, MD

2:14 Are ASCs Suitable for ACDFs / TDRs?

K. Foley, MD

2:20 What are the Guidelines for Return to Work or Play after Surgery?

M. Oppenlander, MD

2:26 Discussion

Complications Avoidance and Management:

2:32 Minimizing Collateral Damage with ACDF

R. Huang, MD

2:38 Posterior Cervical Spine Surgery

I. Moss, MD

2:44 Bailout Options for MIS Intra op Instrumentation Failures

G. Anderson, MD

2:49 Discussion

2:55 Refreshment Break; Exhibit Viewing

*Exhibit Hall*



## Concurrent Session 3B: Robotics, Navigation, Image Guidance

Moderators: S. Qureshi, MD, G. Mundis, MD & A. Kulkarni, MD

[Controversy: Is Robotics the Next Lumbar TDR?](#)

1:20	Introduction	
	<i>Debate: Putting Pedicle Screws in a Twisted Spine. The Best Technique is:</i>	
	Moderator: G. Mundis, MD	
1:22	Case: Rotary Scoliosis in Elderly, Small Female	
1:25	Real Surgeons Free Hand	B. Staub, MD
1:30	Navigation for Feel and 3D View	J.P. Mobasser, MD
1:35	Robots Know Best	I. Lieberman, MD
1:40	Discussion	
1:45	Audience Response	
1:55	Options for Reducing Radiation Exposure in Minimally Invasive Spine Surgery, Even When Budgets are Tight	S. McAnany, MD
2:03	Principles of Navigation: Review of Current Technologies	B. Staub, MD
2:11	2D vs. 3D Image Guidance: How Much is Enough?	P. Park, MD
2:19	Discussion	
2:27	Robotic Spine Surgery: Where are We Today and Where are We heading?	J. Roh, MD
2:37	3D Navigation and Robotics: Complications Avoidance and Management	R. Lehman, MD
2:47	Discussion	
2:55	Refreshment Break; Exhibit Viewing	<i>Exhibit Hall</i>

## Session 4: Technology Updates – Non CME Session

Moderators: K. Radcliff, MD & W. Smith, MD

- 3:20 Presentation on specific technology – Medtronic
- 3:26 Presentation on specific technology – Titan
- 3:32 Presentation on specific technology – Spineology
- 3:38 Presentation on specific technology – Stryker
- 3:44 Presentation on specific technology – Globus Medical
- 3:50 Presentation on specific technology -- DePuy
- 3:56 Discussion

## Session 5: Ambulatory Spine Surgery / Multimodal Analgesia Techniques

Moderators: K. Radcliff, MD & W. Smith, MD

### Controversy: Does Ambulatory Surgery Benefit Patient Outcome?

Transitioning Spine Surgery from the Hospital to an Ambulatory Surgery Center:

- |   |  |                 |
|---|--|-----------------|
| 4:00  | Which Cases Can I Safely Do in an ASC?   | N. Ashraf, MD   |
| 4:07  | ALIF in same day surgery setting (Title TBD)   | J. Schoeff, MD  |
| 4:14  | My Experience and Learning Curve   | K. Singh, MD    |
| 4:21  | Discussion   |                 |
| 4:26  | How to Keep Hospital Administrators Happy While Taking Cases Out of the Hospital   | F. Phillips, MD |
| 4:33  | Do the Economics of ASCs Make Sense in 2018?   | H. Bae, MD      |
| 4:40  | Discussion   |                 |
| 4:45  | Multimodal Analgesia and Anesthesia Techniques for Same Day Discharge<br>Success in Spine Surgery - with Video Demo of TAP Block for ALIF and LLIF | E. Soffin, MD   |
| 4:55  | Use of Opioids in the Ambulatory Setting   | G. Polston, MD  |
| 5:03  | Novel Methods for Treating Postoperative Pain Following Spinal Surgery   | P. Whang, MD    |
| 5:11  | Discussion   |                 |
| <br><u>Debate: Doing Spine Surgery in an ASC:</u> |  |                 |
| Moderator: W. Taylor, MD                          |  |                 |
| 5:16  | Is Better for Your Patients  | M. Wang, MD     |
| 5:22  | Is Worse for the Patient (But Good for the Surgeon's Wallet)   | G. Mundis, MD   |
| 5:28  | Discussion   |                 |
| 5:33  | Audience Response  |                 |
| 5:35  | Adjourn; Welcome Reception   | Exhibit Hall    |
| -6:35 pm  |  |                 |

## Saturday, September 8, 2018

- 7:00 am Registration
- 7:45 Non-CME Technology Workshops with Breakfast  
*Participants choose which to attend*

### Session 6: Degenerative Spine

Moderators: P. Park, MD, K. Foley, MD & S. Rohidas, MD

#### Controversy: Do Standard Degenerative Spine Cases Really Need MIS Approaches?

8:40 Welcome

Debate: For a Herniated Disc the Best Approach is:

- 8:45 Case: Free Fragment, L4-5 Disc
- 8:48 Tubular Approach (incl. video demo) A. Kumar, MD
- 8:56 Endoscopic Approach (incl. video demo) C. Hofstetter, MD
- 9:04 Micro-discectomy (incl. video demo) L. Khoo, MD
- 9:12 Discussion
- 9:16 Audience Response

Debate: L4-5 Grade 1 Spondylolisthesis / Stenosis. The Best Technique is:

- 9:19 Case Example
- 9:22 MIS TLIF J.P. Mobasser, MD
- 9:28 Awake Fusion M. Wang, MD
- 9:34 Decompression Without Fusion S. Ryu, MD
- 9:40 Indirect Decompression and LLIF R. Amaral, MD
- 9:46 Discussion
- 9:52 Audience Response

Debate: 2-level L4-S1 Decompression and Fusion. The Best Technique is:

Moderator: S. Qureshi, MD

- 9:55 Case Example
- 9:57 2-level MIS TLIF B. Staub, MD
- 10:03 2-level ALIF With Posterior Fixation J. Uribe, MD
- 10:09 OLIF/LLIF R. Lehman, MD
- 10:15 Discussion
- 10:20 Audience Response
- 10:23 Presentation of Best Paper & Award Presentation
- 10:30 Refreshment Break; Exhibit Viewing *Exhibit Hall*

## Concurrent Sessions: Free Papers

### Session 7A: Emerging Technology, Navigation, and Complications Free Papers

Moderators: P. Mummaneni, MD & R. Lehman, MD

- 10:55 Paper #47: A Quantitative Assessment Of The Accuracy And Reliability Of Robotic Guidance For Lumbar Fusion: A Technique And Application Accuracy  
*Cory Hartman; Jakub Godzik, MD; Corey Walker, MD; Clinton Morgan, MD; Steven Chang, MD; Randall Porter, MD; Laura Snyder, MD; and Juan Uribe, MD; Barrow Neurological Institute, Phoenix, AZ*
- 10:59 Paper #48: Accuracy and Efficiency of Robot-Assisted Pedicle and S2AI Screw Cannulation for Adult Thoracolumbar and Lumbar Fusion: Success and Failure in a Single Surgeon's First 110 Cases and 816 Pedicles  
*A. Ha; New York Presbyterian Columbia, New York, NY.*
- 11:03 Paper #49: Robotics in Spine Surgery: the Use of Pre-op Planning to Optimize the Outcome of Spondylolisthesis Reduction  
*Isador Lieberman and Xiaobang Hu; Texas Back Institute, Texas Health Presbyterian Hospital, Plano, TX*
- 11:07 Paper #50: Preliminary Experience of Mazor X Robot-Assisted Spine Surgery -A Single Institution Study  
*Terrence Julien, M.D.; Allegheny Health Network, Monroeville, PA*
- 11:11 Discussion
- 11:19 Paper #51: Incidence Of Fusion Across Total Disc Replacement With Heterotopic Ossification: Are Ball And Socket Disc Replacements Fusing With And Without Radiographic Evidence.  
*Fabio Pencil, MBBS; Moawiah Mustafa; Luai Mustafa; Kathleen Quijada; Jason Seale, MBBS; and Kingsley Chin, MBBS; LESS Institute, Hollywood, FL and Florida International University, Miami, FL*
- 11:23 Paper #52: The difference in surgical site infection rates between open and minimally invasive spine surgery for degenerative lumbar pathology: a retrospective single center experience of 1,442 cases  
*K. Mueller, D. Zhao, O. Johnson, F. Sandhu, J. Voyadzis; Medstar Georgetown University Hospital, Washington, DC, Georgetown University School of Medicine, Washington, DC.*
- 11:27 Paper #53: Avoiding Unnecessary Contamination of Implant-Bone Interface during MISS: A multi center study  
*Aakash Agarwal, PhD; University of Toledo, toledo, OH*
- 11:31 Paper #54: Management of CSF leakage Occurring During Minimally Invasive Decompressive Spine Surgery in an Ambulatory Surgery Center.  
*THOMAS FRANCAVILLA, MD; Michael Weiss, DO; and Reginald Davis, MD; TULANE UNIVERSITY, New Orleans, LA and Laser Spine Institute, Tampa, FL*
- 11:35 Discussion
- 11:43 Paper #55: Two-Year Outcomes of Patients Treated with BVN Ablation for the Relief of Chronic Low Back Pain: Results of the SMART Trial  
*Hyun Bae; Jeffrey Fischgrund; Rick Sasso; and Alfred Rhyne; Cedars Sinai Medical Center, Los Angeles, CA; William Beaumont Hospital, Royal Oak, MI; Indiana Spine, Indianapolis, IN; and Orthocarolina, charlotte, NC*
- 11:47 Paper #56: A Prospective Multicenter Trial of an Expandable Graft-Containing Fabric Mesh System for Minimally Invasive Single-Level Lumbar Interbody Stabilization: Updates on the Spineology® Clinical Outcomes Trial (SCOUT)

*K. Huang, J. Chi, Z. Moses, M. Krag, P. Nunley, M. Bydon, S. Lavoie. SCOUT Investigators; Brigham and Women's Hospital, Boston, MA, University of Vermont College of Medicine, South Burlington, VT, Louisiana State University Health Sciences Center, Shreveport, LA, Mayo Clinic, Rochester, MN, Central Florida Regional Hospital, Sanford, FL, SCOUT Investigators, MA.*

- 11:51 Paper #57: Molybdenum Rhenium Alloy provides Superior Biomechanical and Wear Properties for a New Generation of Spine Implants  
*Kornelis Poelstra, M.D., Ph.D.; Jorge Isaza, MD; Kee Kim, MD; Raphael Roybal, MD; Cyrus Ghavam, MD; Samuel Joseph, MD; and Matthew McGirt, MD; The Spine Institute on the Emerald Coast, Fort Walton, FL; Surgical Speciality Center of Baton Rouge, Baton Rouge, LA; UC Davis School of Medicine, Sacramento, CA; Chatham Orthopaedics Associates, Savannah, GA; The Orthopedic Center, Huntsville, AL; Joseph Spine, Tampa, FL; and Carolina Neurosurgery & Spine, Charlotte, NC*
- 11:55 Paper #58: A Single Surgeon Experience And Results Between Multi-level Lumbar Laminectomy With Microscopic Tubular Approach And Fully-endoscopic Approach: A Report Of Over 1000 Cases And Up To 6 Years Follow-up  
*Jian Shen, MD, PhD; Mohaw Valley Orthopedics, PC, Amsterdam, NY*
- 11:59 Discussion
- 12:07 Paper #59: The Influence of Conflicts of Interest on Outcomes in the Lumbar Disc Arthroplasty Literature  
*Jordan Guntin, BS; Kaitlyn Cardinal, BS; Brittany Haws, MD; Benjamin Khechen, BA; Dil Patel, BS; Simon Lalehzarian, MS; Kern Singh, MD; Rush, Chicago, IL*
- 12:11 Paper #60: Appropriateness of Elective Outpatient Spine Surgery Referral  
*F. Sourial, B. Woods, G. Schroeder, D. Kaye, C. Kepler, V. Hsu, G. Lee, M. Kurd, J. Rihn, G. Anderson, A. Hilibrand, A. Vaccaro, K. Radcliff; Rowan University, Stratford, NJ, Rothman Institute, Egg Harbor Township, NJ*
- 12:15 Paper #61: Assessing The True Cost Of Minimally Invasive Tlif In Patients With Workers' Compensation using Tdabc  
*Daniel Bu; Samuel Overlay; Steven McAnany; Todd Albert; and Sheerez Qureshi; New York, New York, NY*
- 12:19 Discussion

## **Session 7B: Asian Perspectives Free Papers**

**Moderators: J.S.L. Kim, MD; S. Rohidas, MD; S. Ryu, MD**

- 10:55 Paper #62: Clinical and Radiological Outcome of Mini Modified Open and Open TLIF- A Comparative Study  
*F. Syed; Sri Ramachandra Medical College and Research Institute, Chennai, INDIA.*
- 10:59 Paper #63: Comparative Clinical Analysis Of OLIF51 And Percutaneous Posterior Fixation In Lateral Position Versus MIS-TLIF For Lumbosacral Degenerative Disorders  
*Yoshihisa Kotani; Richard Hynes; Yoshinao Koike; Hidemasa Terao; Yumejiro Nakamura; Hiroyuki Tachi; Yusuke Kameda; and Yasushi Yabuuchi; Spine and Spinal Cord Center, Steel Memorial Muroan Hospital, Muroan, Japan and B.A.C.K. Center, Merbourne, FL*
- 11:03 Paper #64: Short term Results of Lumbar Interbody Fusion Using Cortical Bone Trajectory Screw Technique  
*D. Choj, J. Kim, H. Lee, M. Shin, S. Kim; Incheon St. Mary's Hospital, The Catholic University of Korea, Incheon, KOREA, REPUBLIC OF.*
- 11:07 Paper #65: Surgeon, Staff, and Patient Radiation Exposure in MIS TLIF: Impact Of 3D CT-Based Navigation in comparison to Conventional Fluoroscopy Aided Technique.

- 11:11 Discussion
- 11:19 Paper #66: Transforaminal Endoscopic Thoracic Discectomy  
*Junseok Bae; Sang-Ha Shin; Sang-Ho Lee; and Han-Joong Keum; Wooridul Spine Hospital, Seoul, Korea, Republic of*
- 11:23 Paper #67: Percutaneous Transforaminal Endoscopic Spine System With Target Technique For Treatment Of Lumbar Spinal Disc Herniation In Scoliosis Patients  
*Qingbing Meng and Wensheng Zhang; The 4th affiliated hospital to Nantong university, Yancheng, China*
- 11:27 Paper #68: Surgical considerations for percutaneous endoscopic lumbar discectomy at L5/S1 level with quantified assessment  
*G. Fan; Tongji University School of Medicine, Shanghai, CHINA.*
- 11:31 Paper #69: Biportal Bilateral Transforaminal Endoscopic (TFE) Ventral decompression in Calcified Lumbar Disc Stenosis :Preliminary Study of 23 patients.  
*Ajay Krishnan, MS ORTHOPAEDICS; Ajay Krishnan, MS ORTHOPAEDICS; Paresh Bang, MS ORTHOPAEDICS; bharat dave; and Devanand D; Stavva Spine Hospital & Research Institute, Ahmedabad, India; Stavva Spine Hospital, Ahmedabad, India; bharat dave, Ahmedabad, India; and Stavva, Ahmedabad, India*
- 11:35 Discussion
- 11:43 Paper #70: Diffusion-weighted Mr Neurography For The Preoperative Assessment Of Nerve Root Anomaly In Minimally Invasive Spine Surgery  
*Yukihiro Nakagawa, MD, PhD; Hiroshi Yamada, MD, PhD; Mamoru Kawakami, MD, PhD; Hiroshi Iwasaki, MD, PhD; Akihito Minamide, MD, PhD; Masatoshi Teraguchi, MD, PhD; Ryohei Kagotani, MD, PhD; Shunji Tsutsui, MD, PhD; Masanari Takami, MD, PhD; Hiroshi Hashizume, MD, PhD; and Yasutsugu Yukawa, MD, PhD; Wakayama Meidical University Kihoku Hospital, Wakayama City, Japan and Wakayama Meidical University, Wakayama City, Japan*
- 11:47 Paper #71: Contralateral Radiculopathy after Minimally Invasive Oblique Lumbar Interbody Fusion  
*Amit Jhala, M.S. D.N.B; Chirayu Hospital, AHMEDABAD, Gujarat, India*
- 11:51 Paper #72: Indirect decompression of neural foramen after minimally invasive retroperitoneal anterolateral interbody fusion: an MRI study  
*A. Mahatthanatrakul, V. Kotheeranurak, G. Lin, H. Chung, J. Hur, J. Kim; Naresuan University Hospital, Phitsanulok, THAILAND, Queen Savang Vadhana Memorial Hospital, Sri Racha, Chonburi, THAILAND, Seoul St. Mary's Hospital. The Catholic University of Korea, Seoul, KOREA, REPUBLIC OF.*
- 11:55 Paper #73: Large Developed Anterior Subsidence Influences Cervical Alignment And Its Avoidance In Single Level Standalone Cage Assisted Anterior Cervical Fusion  
*JAEWON JANG, MD., PhD.; CHOONKEUN PARK, M.D., PhD.; and DONGHWA HEO, M.D., PhD.; Leon Wiltse Memorial Hospital, SUWON, Korea, Republic of*
- 11:59 Discussion
- 12:07 Paper #74: A Novel Technique Of Spinous Process Splitting Approach In Microscopic Spinal Decompression Surgery For Lumbar Canal Stenosis: An Outcome Study  
*Ashish Jaiswal, FNB (spine surgery), MS (orthopaedics); Siva Reddy, MBBS, DNB; and Satish Kumar, MBBS, DNB; Apollo Hospital, Bilaspur, India*
- 12:11 Paper #75: Vesselplasty in Difficult in vertebral fractures  
*Arvind Bhawe; Deenanath Mangeshkar Hospital, Pune, India*

12:15	Paper #76: Spinejack An Operative Management In Osteoporotic Fractures In Elderly Patients <i>EE PEE SU, MD; ANAND KUMAR, MBBS; and CHOR NGEE TAN, MBBS; HOSPITAL PUTRAJAYA, KUALA LUMPUR, Malaysia</i>	
12:19	Discussion	
12:25pm	Lunch; Last Chance for Exhibit Viewing; Meet-the-Experts Sessions	<i>Exhibit Hall</i>

## Session 8: Technology Updates – Non-CME Session

Moderators: M. Oppenlander, MD & G. Anderson, MD

1:05	Presentation on specific technology – Cerapedics
1:11	Presentation on specific technology - Orthofix
1:17	Presentation on specific technology - SpineCraft
1:26	Discussion

## Session 9: New Technology / Interbody Implant Surface Technologies / Fusion Options

Moderators: M. Oppenlander, MD & G. Anderson, MD

1:30	Porous PEEK and Titanium Coated Interbody Cages – Hype or Not?	P. Whang, MD
1:38	Nanotechnology Improves Fusion – Real or Hype?	P. Slosar, MD
1:46	Cellular Allograft – As Good As BMP?	C. Upadhyaya, MD
1:54	Talk on Metallurgy – <b>Dr. Bae to specify title</b>	H. Bae TBD
2:02	Discussion	
2:08	Interspinous Decompression Devices – Do They Have a Role?	P. Nunley, MD
2:14	TLIF Expandable Cage – Straight Oblique vs Banana Cage	V. Chang, MD
2:20	Discussion	
2:27	Lateral Expandable Cage Technology	R. Eastlack, MD
2:35	Fenestrated Pedicle Screws to Optimize Fixation in Osteoporosis or Tumor	K. Than, MD
2:43	Endoscopic Fusion	W. Taylor, MD
2:51	Discussion	
	<i><u>Debate: PEEK vs Titanium: which is better?</u></i>	
2:56	PEEK Cages are Best to Decrease Subsidence and Obtain Fusion	N. Anand, MD
3:01	Titanium Cages are Best for Osteointegration	S. Berven, MD
3:06	Discussion	
3:11	Audience Response	

## Session 10: Complications – Avoidance and Management

Moderators: L. Khoo, MD; S. Eden, MD

	Review of Common Complications, Methods for Management and Avoidance:	
3:14	LLIF	A. Kanter, MD
3:19	OLIF	R. Lehman, MD
3:24	MIS TLIF	K. Radcliff, MD
3:30	Endoscopic Decompression	J.S Kim, MD
3:36	Anterior Column Realignment	J. Uribe, MD

3:42	Discussion	
3:45	MIS Strategies to Treat Symptomatic Adjacent Segment Disease	Z. Ray, MD
3:51	Optimizing Management of Osteoporotic Patients who undergo MIS Fusion	P. Mummaneni, MD
3:57	Video: Treatment of Durotomies in MIS	J. O'Toole, MD
4:07	Discussion	
4:15	Adjourn	