

## **e-Presentation Schedule: Endoscopy, Lateral, and Trauma**

**Friday, September 30**

**10:50 am – 11:14 am**

During AM Refreshment Break, in the Renaissance Foyer

*Watch the videos, and ask questions of the presenters*

- 10:50 **e-Presentation #59:** Endoscopic Resection of Pseudoarticulation at C1-2: Case Report and Technical Note  
*Vivek Abraham ; Vyacheslav Makler, DO - NMCP; Gino Mongelluzzo ; Sean Barber ; Sanjay Konakondla*
- 10:52 **e-Presentation #60:** Epidural vs Local Anesthesia for Percutaneous Endoscopic Lumbar Discectomy: A Systematic Review and Meta-Analysis  
*James Mooney ; Nicholas Erickson ; Nicholas M. Laskay, MD - University of Alabama at Birmingham Hospital; Arsalaan Salehani ; Anil Mahavadi ; Adeel Ilyas ; Bipul Mainali ; Jake Godzik*
- 10:54 **e-Presentation #63:** Biportal Endoscopic Spine Surgery for Lumbar Laminectomy and Discectomy: Preliminary Post-Operative Outcomes and Surgical Learning Curve  
*Philip Zakko, ; Matthew Lipphardt ; Maximillian Lee ; Daniel Park*
- 10:56 **e-Presentation #74:** Technique for Spondylolisthesis Reduction and Segmental Lordosis Optimization in Lateral Lumbar Interbody Fusion with Percutaneous Pedicle Screw Fixation (LLIF-PPS) – A Case Series  
*Paul Brian Soriano, MD - University of Minnesota; Jason Haselhuhn, DO - University of Minnesota; Maximilian Redemann ; Jonathan Sembrano, MD - University of Minnesota*
- 10:58 **e-Presentation #79:** Biomechanical Feasibility of Multilevel Stand-Alone Lumbar Lateral Interbody Fusion Utilizing 26 mm Cages  
*James M. Mok, MD, MBA - NorthShore University HealthSystem; Ye Lin, M.D. - University of Illinois Chicago; Julio Castillo, M.D. - University of Illinois Chicago; Roberto Leonardo Diaz, Ph.D. - University of Illinois Chicago; Farid Amirouche, Ph.D. - University of Illinois Chicago*
- 11:00 **e-Presentation #80:** A Novel Neurovascular Classification System for Lateral Lumbar Surgery  
*Fernando Villamil - Spine by Villamil MD; Jeffrey A. Moore, ; Edith Garcia - Spine by Villamil MD; Leighton LaPierre - Spine by Villamil*

- 11:02 **e-Presentation #82:** Comparing Clinical and Radiological Outcomes Between OLIF and XLIF for the Treatment of Single Level Lumbar Disease: A Systematic Review and Meta-Analysis  
*Neil Patel ; Daniel Coban ; Stuart Changoor ; Stephen Sacla ; Kumar Sinha ; Ki Hwang ; Michael Faloon ; Arash Emami*
- 11:04 **e-Presentation #83:** Analysis of Non-Neurological Structures at Risk for Oblique Lateral Interbody Fusion from L1-S1 using Abdominal CT Imaging  
*Gideon Harianja - School of Medicine, Loma Linda University; Jacob Razzouk - School of Medicine, Loma Linda University; Shaurya Mehta - University of California, Riverside; Omar Ramos - Department of Orthopaedic Surgery, Loma Linda University; Olumide Danisa - Department of Orthopaedic Surgery, Loma Linda University; Wayne Cheng - Division of Orthopaedic Surgery, Jerry L. Pettis Memorial Veterans Hospital*
- 11:06 **e-Presentation #84:** CT-Based Analysis of Oblique Lateral Interbody Fusion from L1-L5: Location of Incision, Feasibility of Safe Corridor Approach, and Influencing Factors  
*Jacob Razzouk - School of Medicine, Loma Linda University; Shaurya Mehta - University of California, Riverside; Gideon Harianja - School of Medicine, Loma Linda University; Omar Ramos - Department of Orthopaedic Surgery, Loma Linda University; Nathaniel Wycliffe - Department of Radiology, Loma Linda University; Olumide Danisa - Department of Orthopaedic Surgery, Loma Linda University; Wayne Cheng - Division of Orthopaedic Surgery, Jerry L. Pettis Memorial Veterans Hospital*
- 11:08 **e-Presentation #115:** Efficacy and safety of unilateral percutaneous Vertebroplasty for acute traumatic non-osteoporotic compression vertebral fractures  
*Ali hammed, Neurosurgery Resident - Tishreen University Hospital; Moufid Mahfoud ; Okbah Mohamad*
- 11:10 **e-Presentation #116:** Percutaneous Lumbopelvic Fixation Without Fusion is Effective in the Management of U shaped Sacral Fractures  
*Mark C. Lawlor, MD - University of Rochester; Addisu Mesfin ; Clarke I. Cady-McCrea, MD - University of Rochester Medical Center; Andrea Kulp, NP - University of Rochester*
- 11:12 **e-Presentation #118:** Comparison of Navigated Expandable Vertebral Cage with Conventional Expandable Vertebral Cage for Minimally Invasive Lumbar/Thoracolumbar Corpectomy  
*Masato Tanaka - Okayama Rosai Hospital / Japan*

## **e-Presentation Schedule: Biologics, Cervical, Complications, Degenerative**

**Friday, September 30**

**12:40 pm – 1:05 pm**

During Lunch Break, in the Renaissance Foyer

*Watch the videos, and ask questions of the presenters*

- 12:40 **e-Presentation #4:** Optimization Analysis of 3D Printed Titanium Surfaces for Mesenchymal Stem Cells

*Gregory K. Paschal, MS - Hospital for Special Surgery; Philip K. Paschal, MS - Hospital for Special Surgery; Fedan Avrumova, BS - Hospital for Special Surgery; Samuel Goldman, BS - Hospital for Special Surgery; Gbolabo Sokunbi, MD - Hospital for Special Surgery; Darren Lebl, MD, MBA - Hospital for Special Surgery; Frank Cammisa, MD - Hospital for Special Surgery; Celeste Abjornson, PhD - Hospital for Special Surgery*

- 12:42 **e-Presentation #12:** Novel Poly-Ether-Ketone-Ketone versus Titanium Interbody Cages in Patients Undergoing ACDF Procedures, a Prospective Evaluation

*Philip K. Paschal, MS - Hospital for Special Surgery; Celeste Abjornson, PhD - Hospital for Special Surgery; Gregory K. Paschal, MS - Hospital for Special Surgery; Fedan Avrumova, BS - Hospital for Special Surgery; Darren Lebl, MD, MBA - Hospital for Special Surgery; Frank Cammisa, MD - Hospital for Special Surgery*

- 12:44 **e-Presentation #13:** Differential Effects of Late Surgical Start Time on Cost and Outcomes in 1-2 Level versus 3-4 Level ACDF: A Retrospective Analysis of Over 13,000 Patients from an Urban Academic Hospital

*Renee Ren, ; Jonathan Gal ; Eric Geng ; Christopher Gonzalez ; Bashar Zaidat, ; Akiro Duey ; Kush Shah, ; Brian Bueno ; Justin Tang ; Jun Kim ; Samuel Cho*

- 12:46 **e-Presentation #19:** Comparative evaluation of screw accuracy and complications of new C-arm free O-arm navigated minimally invasive cervical pedicle screw fixation (MICEPS) with conventional cervical screw fixation

*Masato Tanaka, n/a - Okayama Rosai Hospital / Japan*

- 12:48 **e-Presentation #24:** Anterior Lumbar Spinal Fusion Perioperative Morbidity and Mortality Utilizing the National Inpatient Sample (NIS): 2005-2013

*Connor Dunn ; Stuart Changoor ; Daniel Coban ; Neil Patel, ; Kumar Sinha ; Ki Hwang ; Michael Faloon ; Arash Emami*

- 12:50 **e-Presentation #25:** Clinical and Radiological Outcomes Between Anterior Lumbar Interbody Fusion with Percutaneous Pedicle Screw Fixation and Transforaminal Lumbar Interbody Fusion in the Treatment of High-Grade Isthmic Spondylolisthesis  
*Daniel Coban ; Stuart Changoor ; Neil Patel , ; Kumar Sinha ; Ki Hwang ; Michael Faloon ; Arash Emami*
- 12:52 **e-Presentation #26:** Long-Term Outcomes Between Minimally Invasive Transforaminal Lumbar Interbody Fusion and Extreme Lateral Interbody Fusion in Obesity: A Retrospective Comparative Study  
*Daniel Coban ; Stuart Changoor ; Connor Dunn ; Neil Patel , ; Kumar Sinha ; Ki Hwang ; Michael Faloon ; Arash Emami*
- 12:54 **e-Presentation #35:** Biomechanical Analysis on Viability of Various Fixation Methods in Lateral Lumbar Interbody Fusion  
*Hyun-Ji Lee, n/a - Inje University; Sung-Jae Lee, n/a - Inje University; Jong-Myung Jung ; Jae-Won Lee - GS Medical Co. Ltd.; Ji-Eun Jang - GS Medical Co. Ltd.*
- 12:56 **e-Presentation #38:** Open Versus Minimally Invasive Transforaminal Lumbar Interbody Fusion in the Treatment of Two-Level Degenerative Disc Disease  
*Daniel Coban ; Stuart Changoor ; Neil Patel , ; Kumar Sinha ; Ki Hwang ; Michael Faloon ; Arash Emami*
- 12:58 **e-Presentation #41:** Comparison of Simultaneous Single-Position Oblique Lumbar Interbody Fusion and Percutaneous Pedicle Screw Fixation with Posterior Lumbar Interbody Fusion Using O-arm Navigated Technique for Lumbar Degenerative Diseases  
*Masato Tanaka, Okayama Rosai Hospital / Japan*
- 1:00 **e-Presentation #42:** Prediction of subsidence in relation to cage size, position and insertion angle after oblique lumbar interbody fusion(OLIF); a finite element study  
*Jinho Youn , ; Sung-Jae Lee, n/a - Inje University; Ji-Eun Jang - GS Medical Co. Ltd.; Jae-Won Lee - GS Medical Co. Ltd.; Jung-woo Hur, n/a - Eunpyeong St. Mary's Hospital, The Catholic University of Korea*
- 1:02 **e-Presentation #50:** On-Demand / Rapid 3D Printing and Virtual Surgical Planning for Spinal trauma & surgical reconstruction: A glimpse into the future with “point of care” delivery of personalised medicine.  
*David A. Tredan - Prince of Wales Hospital; Ralph Mobbs ; William Parr*
- 1:04 **e-Presentation #29:** Clinical and Radiological Effects of OLIF51 in Adult Spinal Deformity Correction Surgery  
*Yoshihisa Kotani, MD*

## **e-Presentation Schedule: Navigation, Robotics, and AI**

**Friday, September 30**

**3:05 – 3:25 pm**

During PM Refreshment Break, in the Renaissance Foyer

*Watch the videos, and ask questions of the presenters*

- 3:05 **e-Presentation #88:** Prospective 3D Imaging Study of Screw Position Using Two Different Robotic Spinal Surgery Techniques  
*Fedan Avrumova, BS - Hospital for Special Surgery; William Zelenty, MD - Hospital for Special Surgery; Samuel Goldman, BS - Hospital for Special Surgery; Frederik Abel, MD - Hospital for Special Surgery; Darren Lebl, MD, MBA - Hospital for Special Surgery*
- 3:07 **e-Presentation #91:** Application of Derivative Analyses to Peri-Operative Functional Activity Data in Lumbar Decompression and Fusion Patients  
*Daksh Chauhan, BS - Perelman School of Medicine at the University of Pennsylvania; Hasan Ahmad, BS - Perelman School of Medicine at the University of Pennsylvania; Ali Hamade - University of Pennsylvania; Andrew Yang, MD; Michael Y. Wang, MD, FACS; Gregory Basil, MD; Jang Yoon, MD, MSc*
- 3:09 **e-Presentation #92:** Assessing Radiation Exposure to Spine-Focused Neurosurgeons in Real Time  
*Daksh Chauhan, BS - Perelman School of Medicine at the University of Pennsylvania; Hasan Ahmad, BS - Perelman School of Medicine at the University of Pennsylvania; Shikha Singh, BS; Ahmed Albayar, MD; Arjun Patel, BS; William C. Welch, MD, FACS, FICS - University of Pennsylvania, Perelman School of Medicine; Jang Yoon, MD, MSc*
- 3:11 **e-Presentation #93:** Machine Learning Models Predict Post-Operative Functional Outcomes in Spine Surgery Using Smartphone Accelerometry Data  
*Daksh Chauhan, BS - Perelman School of Medicine at the University of Pennsylvania; Ali Hamade - University of Pennsylvania; Hasan Ahmad, BS - Perelman School of Medicine at the University of Pennsylvania; Andrew Yang, MD; Michael Y. Wang, MD, FACS; Gregory Basil, MD; Jang Yoon, MD, MSc*
- 3:13 **e-Presentation #94:** Identifying Contributors to Post-Operative Functional Outcomes with a Principal Component Analysis of Smartphone Accelerometry Data  
*Daksh Chauhan, BS - Perelman School of Medicine at the University of Pennsylvania; Hasan Ahmad, BS - Perelman School of Medicine at the University of Pennsylvania; Andrew Yang, MD; Michael Y. Wang, MD, FACS; Gregory Basil, MD; Jang Yoon, MD, MSc*

3:15 **e-Presentation #95:** Comparing Patient-Reported Outcomes and Objective Activity Outcomes Collected from Smartphone Accelerometry

*Daksh Chauhan, BS - Perelman School of Medicine at the University of Pennsylvania; Hasan Ahmad, BS - Perelman School of Medicine at the University of Pennsylvania; Andrew Yang, MD ; Michael Y. Wang, MD, FACS ; Gregory Basil, MD ; Jang Yoon, MD, MSc*

3:17 **e-Presentation #96:** Clinical and Radiologic Outcomes of Single and Double Level O-arm versus C-arm Minimally Invasive Transforaminal Lumbar Interbody Fusion (MIS-TLIF) for Degenerative Spondylolisthesis

*Kia Teng Lim - National University of Singapore, Yong Loo Lin School of Medicine; Alagan Gnanam - National University of Singapore, Yong Loo Lin School of Medicine; Rui Xiang Toh - Singapore General Hospital; Youheng Ou yang - Singapore General Hospital; Reuben Soh - Singapore General Hospital*

3:19 **e-Presentation #98:** First-in-Human Study of Software-Only Guidance & Verification for MISS: Tools from Intra-Op X-Rays Shown Instantly on Axial & Sagittal Views from Standard Pre-Op CT

*Ory Keynan - Rambam Healthcare Campus; Shay Menachem - Division Of Spine Surgery , Rambam Healthcare Campus; Elias Haddad - Division Of Spine Surgery , Rambam Healthcare Campus*

3:21 **e-Presentation #121:** Robotic-Navigated Assistance in Spine Surgery: A single Institution Evaluation of 1001 Pedicle Screws

*Fedan Avrumova, Frederik Abel, Samuel Goldman, Celeste Abjornson, Darren Lebl; HSS | Hospital for Special Surgery*

3:23 **e-Presentation #122:** Objective and Subjective Validations of a Novel Spinal Guidance System for Pedicle Screw Placement using Augmented Reality and Artificial Intelligence

*G. Bryan Cornwall, PhD, MBA, PEng; Cristian J. Luciano, PhD; Selvon St. Clair, MD, PhD; Hani Malone, MD; Kateryna Parfeniuk, MS; Kris Siemionow, MD, PhD*