

Program at a Glance

Time	Day1 August 14 (Thu)		Day2 August 15 (Fri)			Day3 August 16 (Sat)				
	Room A	Room B	Room A	Room B	Room C	Room A	Room B	Room C		
7:30			Opening Remarks Introduction of PASMISS 2025			Breakfast Symposium				
7:40										
7:50			Free paper 1 (Basic)			Free paper 2 (AI)	Quick fire 1	Free paper 17 (Cervical)	Free paper 18 (MIS fusion)	Quick fire 9
8:00										
8:10			Free paper 3 (Navigation)			Free paper 4 (AI)	Quick fire 2	Free paper 19 (Endoscopy-Cervical)	Free paper 20 (MIS fusion)	Quick fire 10
8:20										
8:30			Symposium 1			Symposium 2		Symposium 7		Symposium 8
8:40										
8:50										
9:00										
9:10										
9:20			Coffee break				Coffee break			
9:30										
9:40										
9:50										
10:00										
10:10			Free paper 5 (Endoscopy-fusion)			Free paper 6 (Deformity)	Quick fire 3	Plenary symposium 2		
10:20										
10:30			Free paper 7 (Endoscopy-fusion)			Free paper 8 (Deformity)	Quick fire 4	Invited lecture		
10:40										
10:50	Plenary symposium 1				Symposium 9			Symposium 10		
11:00										
11:10										
11:20										
11:30										
11:40	Group photo				Adjourn & Closing remark					
11:50										
12:00	Luncheon Symposium			Luncheon Symposium						
12:10										
12:20										
12:30										
12:40										
12:50	Symposium 3			Symposium 4						
13:00										
13:10										
13:20										
13:30										
13:40	Free paper 9 (Endoscopy-disc)			Free paper 10 (Thoracolumbar fusion)	Quick fire 5					
13:50										
14:00	Free paper 11 (Endoscopy-disc)			Free paper 12 (MIS fusion)	Quick fire 6					
14:10										
14:20	Coffee break									
14:30										
14:40	Symposium 5			Symposium 6						
14:50										
15:00										
15:10										
15:20										
15:30	Endoscopic Spine Surgery Video Forum - Session 1									
15:40										
15:50										
16:00										
16:10										
16:20	Endoscopic Spine Surgery Video Forum - Session 2									
16:30										
16:40										
16:50										
17:00										
17:10	Free paper 13 (Endoscopy-stenosis)			Free paper 14 (Fracture/osteoporosis/tumor)	Quick fire 7					
17:20										
17:30	Free paper 15 (Endoscopy-stenosis)			Free paper 16 (Fracture/osteoporosis/tumor)	Quick fire 8					
17:40										
17:50	Welcome Reception			Presidential dinner						
18:00										
18:10										
18:20										
18:30										
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18:50										
19:00										
19:10										
19:20										
19:30	Night Yacht Tour									
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22:00										

Pre-Course_Endoscopic Spine Surgery Video Forum

15:00-16:00	Video session 1. Learning Biportal Endoscopic Spine Surgery from Korean Experts	(Room B)
	Moderator: Jae-Young Hong (Korea)	Speaker
15:00-15:12	Biportal Endoscopic Interlaminar Approach: Step-by-Step Basics	Sang-Min Park (Korea)
15:12-15:24	Biportal Paramedian Approach for Lumbar Foraminal and Extraforaminal Lesions	Sub-Ri Park (Korea)
15:24-15:36	Biportal Endoscopic ULBD in Cervical myelopathy	Seok-Bong Jung (Korea)
15:36-15:48	Biportal Endoscopic Lumbar Interbody Fusion: Basic Technique and Indications	Ju-Eun Kim (Korea)
15:48-16:00	Discussion	
16:00-17:00	Video Session 2. Challenging Cases in Endoscopic Spine Surgery: Advanced Solutions and Technical Strategies	(Room B)
	Moderator: Si-Young Park (Korea)	Speaker
16:00-16:10	Revision Endoscopic Spine Surgery	Hyoung-Bok Kim (Korea)
16:10-16:20	Biportal Cervical Foraminotomy: Key Anatomical Considerations and Technique	Min-Seok Kang (Korea)
16:20-16:30	Thoracic Biportal Endoscopic Discectomy and Decompression	Seung-Hyun Choi (Korea)
16:30-16:40	Full-Endoscopic TLIF via Trans-Kambin Approach for Indirect Decompression	Jae-Heung Shin (Korea)
16:40-16:50	Biportal Endoscopic Lumbar Interbody Fusion Using Multiportal Technique for Large Cage Insertion	Hyun-Jin Park (Korea)
16:50-17:00	Discussion	

07:45-08:00	Opening	(Room A)
07:45-07:55	Opening Remarks	Jae Chul Lee (President of PASMISS 2025, Korea)
08:05-08:10	Introduction of Scientific Program	Jae Hyup Lee (Chair of Scientific Committee, Korea)
08:00-08:30	Free paper 1 (Basic)	(Room A)
	Moderator: Kuo-Yuan Huang (Taiwan), Jae Hyup Lee (Korea)	Speaker
08:00-08:05	Targeting TSP-1/TGF-β1 Signaling and Oxidative Stress in Ligamentum Flavum Hypertrophy: A Potential Therapeutic Strategy	Yu-Chia Hsu (Taiwan)
08:05-08:10	Thrombospondin-1 Plays a Role in Intervertebral Disc Aging and Degeneration.	Yuan Fu Liu (Taiwan)
08:10-08:15	Development of a new treatment for osteoporotic vertebral fractures using adipose-derived stem cell spheroids	Yuta Sawada (Japan)
08:15-08:20	Nucleus pulposus-derived mesenchymal stem cells combining with Pure Platelet-rich plasma applying in Intervertebral disc degeneration treatment	Jie Huang (China)
08:20-08:30	Discussion	
08:30-09:00	Free paper 3 (Navigation)	(Room A)
	Moderator: Hee-Kit Wong (Singapore), Kwang-Sup Song (Korea)	Speaker
08:30-08:35	Hybrid Endoscopic thoracic discectomy using robotic arm and navigation for high migrated calcified disc herniation	Yi-Hao Liang (China)
08:35-08:40	Enhancing Precision in Oblique Lumbar Interbody Fusion: A Clinical Evaluation of O-arm Navigation-Assisted Techniques	Hongxun Sang (China)
08:40-08:45	Safer Robotic Spine Surgery and Its Cost: A Retrospective Study of 1,200 Cases	Yen-Mou Lu (Taiwan)
08:45-08:50	Educational Utility and Screw Insertion Accuracy of Robotic-Assisted Spine Surgery Among Young Residents	Saori Soeda (Japan)
08:50-09:00	Discussion	
09:00-10:00	Symposium 1 (Cervical & pediatric deformity)	(Room A)
	Moderator: Huilin Yang (China), Chong Suh Lee (Korea)	Speaker
09:00-09:10	Latest updates of cervical deformity correction	Seok Woo Kim (Korea)
09:10-09:20	Cervico-thoracic kyphosis correction	Sunny Kim (USA)
09:20-09:30	Complex cervical deformity surgery in rare genetic disease	Hyoungmin Kim (Korea)
09:30-09:40	Solid Rod Tether for Thoracic Scoliosis? An Analysis of Progressive Curve Straightening Behaviour in Bi-Portal Endoscopic Anterior Spinal Fusion.	Hee-Kit Wong (Singapore)
09:40-09:50	MISS for AIS: Evolving technique and long-term outcomes in the Adolescent Spine	Jae-Hyuk Yang (Korea)
09:50-10:00	Discussion	
10:00-10:20	Coffee break	
10:20-10:50	Free paper 5 (Endoscopy-fusion)	(Room A)
	Moderator: Cheng-Li Lin (Taiwan), Seok-Bong Jung (Korea)	Speaker
10:20-10:25	Application of Uni-portal Non-coaxial Spinal Endoscopic Surgery (UNS) in Lumbar Interbody Fusion	Jizheng Li (China)
10:25-10:30	Clinical and Radiologic Outcomes of Biportal Endoscopic Lumbar Interbody Fusion Using a Single Expandable Cage: A Single-Center Study with Minimum 1-Year Follow-up	Sub-Ri Park (Korea)
10:30-10:35	Radiological and Clinical Outcomes of PEEK cage Versus 3D-Printed Titanium cage in Biportal Lumbar Interbody Fusion: A Retrospective Comparative Study	Seok-Bong Jung (Korea)
10:35-10:40	Uniportal Endoscopic Fusion versus Endoscope-Assisted Oblique Lateral Lumbar Interbody Fusion for Degenerative Spondylolisthesis: A Comparative Efficacy Study	Simao Song (China)
10:40-10:50	Discussion	
10:50-11:20	Free paper 7 (Endoscopy-fusion)	(Room A)
	Moderator: Jwo-Luen Pao (Taiwan), Heui Jeon Park (Korea)	Speaker
10:50-10:55	Technical report and clinical outcomes of UBE-eXTLIF combined with endoscopy-assisted percutaneous unilateral pedicle screw fixation for the treatment of single level lumbar degenerative diseases	Dasheng Tian (China)
10:55-11:00	Clinical efficacy of UBD-TLIF versus transforaminal lumbar interbody fusion in the treatment of grade 1 lumbar spondylolisthesis	Shisheng He (China)
11:00-11:05	Full-Endoscopic Trans-Kambin Triangle Lumbar Interbody Fusion with Reverse Insertion of an Oblique Lateral Cage: A Case Series	Jui-Ming Yang (Taiwan)
11:05-11:10	Two-Year Radiological Fusion Outcomes Following Biportal Endoscopic Transforaminal lumbar interbody fusion using kidney Bean-Shaped Interbody Cages	Ja-Yeong Yoon (Korea)
11:10-11:20	Discussion	

11:20-12:00	Plenary lecture 1	(Room A+B)
	Moderator: Jae-Yoon Chung (Korea), Jae Chul Lee (Korea)	Speaker
11:20-11:35	Pedicle screw fixation: 40 years of development and challenges	Christian Mazel (France)
11:35-11:50	Oncologic aspect of spinal deformity	Christian Mazel (France)
11:50-12:00	Discussion	
12:00-12:10	Group photo	(Room A+B)
12:10-13:10	Lunchoen symposium	(Room A)
	Moderator: Jae Chul Lee (Korea)	Speaker
12:10-12:30	Amgen Korea X CKD Pharm	Tae-Hoon Kim (Korea)
12:30-12:50	CGBIO	Jae-Young Hong (Korea)
12:50-13:10	Donga ST	Jae Jun Yang (Korea)
13:10-14:10	Symposium 3 (Endoscopic surgery: lumbar disc herniation)	(Room A)
	Moderator: Keng-Chang Liu (Taiwan), Jae-Sung Ahn (Korea)	Speaker
13:10-13:20	Autologous mesenchymal stromal cells for repair intervertebral disc defect after discectomy: a prospective controlled study and 5-year follow-up	Baoshan Xu (China)
13:20-13:30	Biportal endoscopic surgery for extracanal lumbar disc herniation	Chaisiri Chaichankul (Thailand)
13:30-13:40	Various biportal endoscopic discectomy approaches customized for different types of lumbar disc herniation	Yong Jin Park (Korea)
13:40-13:50	Biportal endoscopic lumbar discectomy for cauda equina syndrome	Ho-Jin Lee (Korea)
13:50-14:00	Optimizing outcomes of biportal endoscopic lumbar discectomy; from setting to managing complications	Dae-Woong Ham (Korea)
14:00-14:10	Discussion	
14:10-14:40	Free paper 9 (Endoscopy-disc)	(Room A)
	Moderator: Yudha Mathan Sakti (Indonesia), Yong-Gi Choi (Korea)	Speaker
14:10-14:15	Long-Term Benefits of Minimally Invasive Discectomy: Reduced Risk of Spinal Fusion and Insights Across Patient Subgroups	Sheng Liu (Taiwan)
14:15-14:20	The efficacy and safety of biportal endoscopic compared with microscopic discectomy in lumbar herniated intervertebral disc (ENDO-BH Trial): a multicenter, prospective, assessor-blind, randomized controlled trial	Sang-Min Park (Korea)
14:20-14:25	A novel repair strategy using knotless squeeze anchors for lumbar disc herniation with endplate junction lesions under biportal endoscopic spinal surgery	Qingfeng Hu (China)
14:25-14:30	Endoscopic Interlaminar Standalone Decompression for Lumbar Lateral Recess Stenosis with Subligamentous Disc Herniation: A Disc-Preserving Alternative to Discectomy	Tsung-Mu Wu (Taiwan)
14:30-14:40	Discussion	
14:40-15:10	Free paper 11 (Endoscocpy-disc)	(Room A)
	Moderator: Paresh Chandra Dey (India), Lim Soo Taek (Korea)	Speaker
14:40-14:45	Unilateral Biportal Endoscopic Discectomy via the Contralateral Sublaminar Approach for Lumbar Disc Herniation with Very High-Grade Migration : A Technical Note and Case Series	Yong Jin Park (Korea)
14:45-14:50	Treatment of lumbar disc herniation with multiple annulus fibrosus suture methods under Uni-portal Non-coaxial Spinal Endoscopic Surgery (UNS)	Jiheng Li (China)
14:50-14:55	Optimizing Surgical Approach Selection in Endoscopic Lumbar Discectomy Using 3D CT/MR Fusion Imaging	Jiro Hirayama (Japan)
14:55-15:00	Comparative Efficacy and Experience of Uni-portal versus Bi-portal Spinal Endoscopy in Treating Far Lateral Lumbar Disc Herniation (FLLDH)	Jincai Yang (China)
15:50-15:10	Discussion	
15:10-15:30	Coffee break	

15:30-16:30	Symposium 5 (Endoscopic surgery: lumbar spinal stenosis)	(Room A)
	Moderator: Baoshan Xu (China), Keun Ho Park (Korea)	Speaker
15:30-15:40	Current Perspectives on Biportal Endoscopic Decompression Alone for Lumbar Spinal Stenosis	Hyung-Rae Lee (Korea)
15:40-15:50	The role of biportal endoscopic surgery in severe lumbar stenosis and cauda equina syndrome	Pawin Gajaseni (Thailand)
15:50-16:00	Full-Endoscopic Decompression Surgery for the Treatment of Lumbar Stenosis:Focusing on Surgical Indication, Surgical Approach and Clinical Outcome	Ching-Hsiao Yu (Taiwan)
16:00-16:10	Endoscopic Decompression In Multilevel LCS (Destandau)	Paresh Chandra Dey (India)
16:10-16:20	Preoperative planning for FESS and UBE in spinal endoscopic surgery using 3D-MR/CT fusion imaging.	Jiro Hirayama (Japan)
16:20-16:30	Discussion	
16:30-17:00	Free paper 13 (Endoscopy-stenosis)	(Room A)
	Moderator: Jiro Hirayama (Japan), Kyu-Yeol Lee (Korea)	Speaker
16:30-16:35	Uniportal Full-endoscopic Unilateral Laminotomy for Bilateral Decompression in Lumbar Spinal Stenosis: Relationship between Decompression Range and Functional Outcomes	Bin Zhu (China)
16:35-16:40	No-Punch Decompression Can Effectively Reduce the Risks of Neurological Injury in Unilateral Biportal Endoscopic Surgery	Jwo-Luen Pao (Taiwan)
16:40-16:45	Biportal endoscopic laminectomy versus conventional open laminectomy in patients with lumbar spinal stenosis (ENDO-BS Trial): A multicenter, prospective, assessor-blind, randomized controlled trial	Hyun-Jin Park (Korea)
16:45-16:50	Unilateral Biportal Endoscopic Precision Decompression for Lumbar Spinal Stenosis with Degenerative Scoliosis Clinical and Radiographic Outcomes	Bing Tan (China)
16:50-17:00	Discussion	
17:00-17:30	Free paper 15 (Endoscopy-stenosis)	(Room A)
	Moderator: Yi Hung Huang (Taiwan), Ju-Eun Kim (Korea)	Speaker
17:00-17:05	Prognostic Factors for Postoperative Outcomes in Biportal Endoscopic Spine Surgery	Peem Sarasombath (Thailand)
17:05-17:10	Comparison of Safety and Efficacy of Anesthesia Methods in Percutaneous Endoscopic Lumbar Discectomy: A Network Meta-Analysis	Bin Zheng (China)
17:10-17:15	Biportal endoscopic decompression for degenerative lumbar spondylolisthesis with stenosis	Ho-Jin Lee (Korea)
17:15-17:20	Ligamentum Flavum Preservation in PTED Enhances Long-Term Stability and Patient Satisfaction Over Partial Resection: A Randomized Controlled Trial	Wei Hu (China)
17:20-17:30	Discussion	
18:00~	Presidential dinner	(Room A+B)

08:00-08:30	Free paper 2 (AI) (Room B)	
	Moderator: Meng-Huang Wu (Taiwan), Yongsoo Choi (Korea)	Speaker
08:00-08:05	AI-based analysis highlights the critical role of erector spinae muscle health in predicting outcomes after lumbar spinal fusion	Namhoo Kim (Korea)
08:05-08:10	Feasibility of Lumbopelvic Muscles Volume for Estimating Total Muscle Volume on Computed Tomography: AI-Based Automatic Image Analysis	Yongsoo Choi (Korea)
08:10-08:15	Risk prediction of osteoporotic vertebral compression fractures in postmenopausal osteoporotic women by machine learning modeling	Jun Zou (China)
08:15-08:20	Accuracy of Large Language Models in Predicting Fusion Levels for Adolescent Idiopathic Scoliosis Surgery: A Multimodal Input-Based Study	Hui Zhang (China)
08:20-08:30	Discussion	
08:30-09:00	Free paper 4 (AI) (Room B)	
	Moderator: Ching Hsiao Yu (Taiwan), Jung Sub Lee (Korea)	Speaker
08:30-08:35	Evaluation of Deep Learning for Scoliosis Pre-Screening Using Preprocessed Chest X-ray Images	Min-gu Jang (Korea)
08:35-08:40	Automated Differentiation of Vertebral Compression and Burst Fractures from X-ray Images Using a Novel Machine Learning Model	Kuo-Yuan Huang (Taiwan)
08:40-08:45	Deep Learning MRI Analysis for Differentiating Malignant from Benign Vertebral Compression Fractures: A Retrospective Multicenter Study	Joonghyun Ahn (Korea)
08:45-08:50	Deep learning from X ray to evaluate MRI disc problem	Chien-Chun Chang (Taiwan)
08:50-09:00	Discussion	
09:00-10:00	Symposium 2 (Tumor & osteoporosis) (Room B)	
	Moderator: Hidetomi Terai (Japan), Bong-Soon Chang (Korea)	Speaker
09:00-09:10	Bone Health Optimization	Warat Tassanawipas (Thailand)
09:10-09:20	New paradigm in osteoporosis treatment: beyond bisphosphonate	Hae-Dong Jang (Korea)
09:20-09:30	Predicting survival in patients with metastatic spinal tumors	Dong-Ho Kang (Korea)
09:30-09:40	Can there a place for nonmetallic implants in the management of Metastatic spine disease?	Naresh Kumar (Singapore)
09:40-09:50	Separation surgery in metastatic spinal tumor	Jae Hwan Cho (Korea)
09:50-10:00	Discussion	
10:00-10:20	Coffee break	
10:20-10:50	Free paper 6 (Deformity) (Room B)	
	Moderator: Hee-Kit Wong (Singapore), Dong-Gune Chang (Korea)	Speaker
10:20-10:25	Surgical Correction of Degenerative Lumbar Scoliosis	Ruey-Mo Lin (Taiwan)
10:25-10:30	The changes of muscle character during treatment of adolescent idiopathic scoliosis	Kun Bo Park (Korea)
10:30-10:35	Apical Vertebral Rotation Correction at the Lumbosacral Curve: A Key to Enhancing Coronal Alignment in Degenerative Lumbar Scoliosis	Ratchatapak Raksintham (Thailand)
10:35-10:40	The Influence of Pelvic Sagittal Parameters on the L5/S1 Intervertebral Foramen Size	Jiang Shengdan (China)
10:40-10:50	Discussion	
10:50-11:20	Free paper 8 (Deformity) (Room B)	
	Moderator: Yen-Jen Chen (Taiwan), Sung Su Kim (Korea)	Speaker
10:50-10:55	Different characteristics between acute and delayed proximal junctional failure in adult spinal deformity surgery	Se-Jun Park (Korea)
10:55-11:00	Efficacy of Proximal Junctional Tethering in Spinal Fusion Surgery for Preventing Proximal Junctional Kyphosis and Proximal Junctional Failure: A Meta-analysis	Meng-Huang Wu (Taiwan)
11:00-11:05	One-Stage Posterior Minimally Invasive Surgery in Adult Spinal Deformity	Chun Yeh (Taiwan)
11:05-11:10	The risk factors for mechanical complications after deformity correction in degenerative lumbar scoliosis patients with sagittal imbalance	Sung Min Kim (Korea)
11:10-11:20	Discussion	

11:20-12:00	Plenary lecture 1	(Room A+B)
	Moderator: Jae-Yoon Chung (Korea), Jae Chul Lee (Korea)	Speaker
11:20-11:35	Pedicle screw fixation: 40 years of development and challenges	Christian Mazel (France)
11:35-11:50	Oncologic aspect of spinal deformity	Christian Mazel (France)
11:50-12:00	Discussion	
12:00-12:10	Group photo	(Room A+B)
12:10-13:10	Lunchoen symposium	(Room B)
	Moderator: Sang-Bum Kim (Korea)	Speaker
12:10-12:30	Daewon Pharmaceutical	Namhoo Kim (Korea)
12:30-12:50	GS Medical	Young-Yul Kim (Korea)
12:50-13:10	Baxter	John Choi (Australia)
13:10-14:10	Symposium 4 (Robot & navigation)	(Room B)
	Moderator: Yen-Mou Lu (Taiwan), Yung Park (Korea)	Speaker
13:10-13:20	Navigation/Robot assistant degenerative lumber stenosis.	Hongxun Sang (China)
13:20-13:30	The role of navigation for lumber endoscopic spine surgery	Meng-Huang Wu (Taiwan)
13:30-13:40	What can we optimize with navigation in uniportal endoscopic lumbar interbody fusion for degeneration lumbar diseases?	Yi Hung Huang (Taiwan)
13:40-13:50	O-arm navigation in OLIF	Ji-Won Kwon (Korea)
13:50-14:00	Application of robotic endoscopic surgery	Sang-Min Park (Korea)
14:00-14:10	Discussion	
14:10-14:40	Free paper 10 (Thoracolumbar fusion)	(Room B)
	Moderator: Hun-Kyu Shin (Korea), Dong Eun Shin (Korea)	Speaker
14:10-14:15	Effects of anti-osteoporosis medication in adult posterior spine fusion patients : a systematic review and meta-analysis	Ji-Won Kwon (Korea)
14:15-14:20	The bony density of the pedicle plays a more significant role in the screw anchorage ability than other regions of screw trajectory	Jingchi Li (China)
14:20-14:25	Pedicle screw migration and loosening after long segments of lumbosacral fusion stopping at L1 or L2	Hae-Dong Jang (Korea)
14:25-14:30	Repair of L5 pars defect using headless compression screw with assistance of three-dimensional planning and patient-specific drill guides: The preliminary report and technical notes	Wei-Yu Li (Taiwan)
14:30-14:40	Discussion	
14:40-15:10	Free paper 12 (MIS fusion)	(Room B)
	Moderator: Ruey Mo Lin (Taiwan), Chang-Hoon Jeon (Korea)	Speaker
14:40-14:45	Enhancing Minimally Invasive Transforaminal Lumbar Interbody Fusion with a Novel V-Shape Bichannel Endoscopy System: Clinical Experience and Technical Considerations	Xiong Shilang (China)
14:45-14:50	Spontaneous facet fusion following lateral lumbar interbody fusion supplemented with percutaneous pedicle screw fixation in degenerative lumbar disease	Hyun-Jun Kim (Korea)
14:50-14:55	Vertebral body quality score, Hounsfield Units, and Posterior Disc Height Distraction as Predictors of Cage Subsidence After OLIF Surgery	Bongmo Koo (Korea)
14:55-15:00	Oblique lumbar interbody fusion combined with anterolateral screw fixation and stress endplate augmentation for treating degenerative lumbar spondylolisthesis with osteoporosis	Xingrui Peng (China)
15:50-15:10	Discussion	
15:10-15:30	Coffee break	

15:30-16:30	Symposium 6 (Adult spinal deformity)	(Room B)
	Moderator: Zhaomin Zheng (China), Ki Tack Kim (Korea)	Speaker
15:30-15:40	Surgical Tips for OLIF51	Byung-Joon Shin (Korea)
15:40-15:50	Minimally invasive surgery for optimal surgical outcomes in the treatment of adult spinal deformity	Dong-Gune Chang (Korea)
15:50-16:00	New Surgical Strategy in Treating Adult Degenerative Scoliosis to Prevent the Post-operative Coronal Imbalance.	Yen-Jen Chen (Taiwan)
16:00-16:10	Microstructural and Biomechanical Changes in Spinal Degeneration: Potential Implications for Degenerative Spinal Deformity	Kuo-Yuan Huang (Taiwan)
16:10-16:20	How can we apply LDI in our practice? A nonsystematic review	Nam-Su Chung (Korea)
16:20-16:30	Discussion	
16:30-17:00	Free paper 14 (Fracture/osteoporosis/tumor)	(Room B)
	Moderator: Zairin Noor (Indonesia), Chung-Hwan Kim (Korea)	Speaker
16:30-16:35	Implant-Based Vertebral Augmentation versus Balloon Kyphoplasty in Thoracolumbar Vertebral Compression Fractures: A Comparative Analysis	Soo Hyun Oh (Korea)
16:35-16:40	AI-Enhanced Spine Imaging: A Novel Framework for Osteoporosis Detection and Grading in the Indian Population	Sudhir Ganesan (India)
16:40-16:45	The Interplay among Bone Mineral Density, FRAX-Based Fracture Risk, Skeletal Muscle Mass, and Frailty in Patients with Osteoporotic Vertebral Fractures	Sungsoo Park (Korea)
16:45-16:50	Percutaneous vertebroplasty partition injection technique for the treatment of stage I and II Kummell's disease	Yili Li (China)
16:50-17:00	Discussion	
17:00-17:30	Free paper 16 (Fracture/osteoporosis/tumor)	(Room B)
	Moderator: Shisheng He (China), Kee-Won Rhyu (Korea)	Speaker
17:00-17:05	Prophylactic Antibiotics in Vertebroplasty and Kyphoplasty: A Nationwide Analysis of Infection Rates and Antibiotic Use	Hyung-Youl Park (Korea)
17:05-17:10	Impact of Endoscopic and Open Approaches on Spinal Alignment and Reoperation after Treatment for Pyogenic Spondylodiscitis	Ting-An Cheng (Taiwan)
17:10-17:15	Unveiling Nonlinear Synergy: BMI, Osteoporosis & Disc Degeneration in Post-UBE Lumbar Stability	Jingbo Ma (China)
17:15-17:20	Posterior Fixation with Vertebroplasty for Osteoporotic Vertebral Fractures at the Thoracolumbar Junction: A Comparative Study of the Percutaneous and Conventional Open Pedicle Screw Fixation	Ryo Sasaki (Japan)
17:20-17:30	Discussion	
18:00~	Presidential dinner	(Room A+B)

08:00-08:30	Quick fire 1	Room C
	Moderator: Byung Ho Lee (Korea), Sang-Min Park (Korea)	Speaker
08:00-08:03	A new 3D full-body scanner analyzing the sagittal and coronal balance of the adult spine: a preliminary prospective observational study	Tae Hoon Kang (Korea)
08:03-08:06	Real-Time Anatomical Structure Identification in Lumbar Endoscopic Spine Surgery Using Artificial Intelligence	Yoonjae Cho (Korea)
08:06-08:09	Automated Measurement of Pelvic Parameters Using Convolutional Neural Network in Complex Spinal Deformities: Overcoming Challenges in Coronal Deformity Cases	Dong-Ho Kang (Korea)
08:09-08:12	Changes in facet orientation can simultaneous affect the potential risk of annulus tears and zygapophyseal joint osteoarthritis: a clinical review and biomechanical simulation	Zhipeng Xi (China)
08:12-08:15	Deep learning Algorithm to predict hip disease on lumbar spine X-rays.	Masashi Tsujino (Japan)
08:15-08:30	Discussion	
08:30-09:00	Quick fire 2	Room C
	Moderator: Ahmad Ramdan (Indonesia), Jaewan Soh (Korea)	Speaker
08:30-08:33	Uni-portal non-coaxial spinal endoscopic surgery assisted by intraoperative O-arm total navigation for unilateral laminotomy for bilateral decompression in patients with lumbar spinal stenosis : A retrospective study	Jianmin Li (China)
08:33-08:36	The Role of Paraspinal Muscle Health in Predicting Adjacent Segment Disease After Lumbar Spinal Fusion: A Systematic Review and Meta-Analysis	Tan Lam Minh Nguyen (Taiwan)
08:36-08:39	Clinical characteristics and surgical treatment strategies of multi-regional (≥3) spinal canal stenosis	Lei Niu (China)
08:39-08:42	Endoscopic vs. Conventional Lumbar Interbody Fusion: Less Invasive, but Equally Effective?	Hyo-jong Kim (Korea)
08:42-08:45	Extending the Indications of Minimally Invasive Scoliosis Surgery in Idiopathic Scoliosis: Feasibility in Very Severe Curves Exceeding 75°	Hong Jin Kim (Korea)
08:45-09:00	Discussion	
10:20-10:50	Quick fire 3	Room C
	Moderator: Eun Seok Son (Korea), Han-Dong Lee (Korea)	Speaker
10:20-10:23	Observation on the Application Effect of Retroperitoneal Laparoscopy in Debridement and Bone Graft Fusion for Lumbar Spinal Infections	Tan Hongdong (China)
10:23-10:26	A novel steerable PKP for treatment of thoracolumbar osteoporotic vertebral compression fractures:a study of the clinical efficacy and safety	En Song (China)
10:26-10:29	Percutaneous Transpedicular Intravertebral Cage Augmentation with Short-Segment Fixation Using Specially Designed Cannulated Cage Trials for Advanced Kummell Disease: A Preliminary Study Comparing with Vertebroplasty with Short-Segment Fixation	Sung Cheol Park (Korea)
10:29-10:32	Trans-pedicular Intravertebral Cage Augmentation (TPICA) with Short-level Fixation in the Treatment of Kummell Disease: Mid-term Results from a Case Series	Dae-Woong Ham (Korea)
10:32-10:35	Minimal Invasive Spine Surgery for Very Elderly Patients with Destructive Spondylodiscitis: Case Series	Yunsung Jung (Korea)
10:35-10:38	Clinical outcome and image study of percutaneous vertebroplasty and augemtation with SpineJack system for compression fracture with vacuum cleft	Jiun-Cheng shiu (Taiwan)
10:38-10:50	Discussion	
10:50-11:20	Quick fire 4	Room C
	Moderator: Harmantya Mahadhipta (Indonesia), Hyun-Jin Park (Korea)	Speaker
10:50-10:53	Novel Technique Of Assisted Uniportal Interlaminar Percutaneous Endoscopic Lumbar Discectomy To Increase Versatility For Discectomy : Technical Notes	Yudha Mathan Sakti (Indonesia)
10:53-10:56	Alteration of Spinopelvic Alignment Following Percutaneous Endoscopic Lumbar Discectomy	Yudha Mathan Sakti (Indonesia)
10:56-10:59	Comparative Analysis of Percutaneous Transforaminal Endoscopic Technique and VBE Technique in Treating Single-Level Lumbar Disc Herniation	Haoyu Gong (China)
10:59-11:02	Clinical Study of Annulus Fibrosus Suture Repair Treatment Under Dual Medium Spinal Endoscopy (DMSE)	Yunsong Lu (China)
11:02-11:05	Cauda equina syndrome due to intra-dural hematoma after endocopic fusion	Hyoung Bok Kim (Korea)
11:05-11:08	Indications for and outcomes of full endoscopic lumbar discectomy between spinal levels.	Miho Aoki (Japan)
11:08-11:20	Discussion	

14:10-14:40	Quick fire 5	Room C
	Moderator: Nam-Su Chung (Korea), Hee Jung Son (Korea)	Speaker
14:10-14:13	Clinical effects of unilateral biportal endoscopic decompression for lumbar posterior apophyseal ring separation	Jianjun Liu (China)
14:13-14:16	Does the number of drain tubes influence the formation of postoperative spinal epidural hematoma following biportal endoscopic unilateral laminotomy for bilateral decompression in patients with two-level adjacent lumbar spinal stenosis	Zhuolin Zhong (China)
14:16-14:19	Technical Strategies for Revision Foraminal Decompression/Discectomy by Biportal Endoscopy: A Clinical Series	Yeon-Ho Kim (Korea)
14:19-14:22	Clinical Spectrum, Efficacy, and Safety of Biportal Endoscopic Spine Surgery for Lumbar Disorders: A Retrospective Analysis	Jun-Yeong Seo (Korea)
14:22-14:25	Comparative Analysis of Full Endoscopic Unilateral Laminotomy with Bilateral Decompression Using 3D Versus 2D Spine Endoscopy for the Treatment of Spinal Stenosis: A Retrospective Study	Yuhuan Chung (Taiwan)
14:25-14:28	Does grade one stenotic spondylolisthesis increase the revision rate of single level Percutaneous Stenoscopic Lumbar Decompression (PSLD), A retrospective study of at least three years follow-up.	Po Yuan Lin (Taiwan)
14:28-14:40	Discussion	

14:40-15:10	Quick fire 6	Room C
	Moderator: Hongxun Sang (China), Taekeun Ahn (Korea)	Speaker
14:40-14:43	The fine line of bone resection: subtle differences impact nerve safety in LE-ULBD	Zhi-Kang Yao (Taiwan)
14:43-14:46	Biportal Endoscopic Lumbar Interbody Fusion for Pedicle Insufficiency Fracture with Spondylolytic Spondylolisthesis	Dong-Yun Kim (Korea)
14:46-14:49	Contralateral Sublaminar Approach for L5?S1 Foraminal Stenosis: A Viable Surgical Option?	Sung-nyun, Baek (Korea)
14:49-14:52	How to Prevent and Manage Epidural Hematoma in Endoscopic Spinal Surgery	Yu-Hao Huang (Taiwan)
14:52-14:55	Original Uni-portal Bi-channel & Dual-media Spinal Endoscopy system assists for transpedicular antero-dura decompression (UBD-TADD) : feasibility and technical notes	Muhang Tian (China)
14:55-14:58	A New Docking Point for Bi-Portal Spinal Endoscopy Technique Through the Intervertebro-Foramen: Technical Note on the Safety and Reproducibility of "Doom's Point"	Chuanhao Du (China)
14:58-15:10	Discussion	

16:30-17:00	Quick fire 7	Room C
	Moderator: Whoan Jeang Kim (Korea), Eun-Min Seo (Korea)	Speaker
16:30-16:33	Postoperative Contralateral Facet Cyst After Endoscopic Unilateral Laminectomy for Bilateral Decompression: A Case Report	Weonmin Cho (Korea)
16:33-16:36	Quality of Life and Functional Outcomes after Caudal Epidural Steroid Injection Versus Selective Nerve Root Block in Chronic Low Back Pain: A Single-Center Retrospective Cohort Study	Eric Robhets Lovin (Indonesia)
16:36-16:39	Observation on the Clinical Efficacy of VBE Combined with Percutaneous Internal Fixation in the Treatment of Lumbar Discitis	Xu Liang (China)
16:39-16:42	Biportal Endoscopic-assisted treatment for symptomatic Tarlov cyst ? Technical report and preliminary result	Chih-hsien, Lin (Taiwan)
16:42-16:45	The treatment of facetogenic low back pain by full endoscopic lumbar rhizotomy: the systematic review of current literatures	Chao-Jui Chang (Taiwan)
16:45-16:48	Clinical effect of low-temperature plasma radiofrequency ablation of posterior spinal nerve branches combined with ozone injection in the treatment of lumbar facet joint disorders	Zhang Hui (China)
16:48-17:00	Discussion	

17:00-17:30	Quick fire 8	Room C
	Moderator: Pawin Gajaseni (Thailand), Ji-Won Kwon (Korea)	Speaker
17:00-17:03	The risk factors associated with delirium after lumbar spine surgery in elderly patients	Yifan Wang (China)
17:03-17:06	Minimally Invasive versus Open Micro Lumbar Discectomy Early outcome observations	Mansoorali Hakim Sitabkhan (India)
17:06-17:09	Persistent Pain After Decompression: Unmasking the Role of Facet Joint Pathology in Lumbar Facet Cyst Surgery	Ahmad Ramdan (Indonesia)
17:09-17:12	Posterior thoracic interbody fusion - when is it useful	Hyuk-joon Sohn (Korea)
17:12-17:15	Newly developed probe showing depth in anteroposterior view for safe PPS insertion	Takeshi Aoyama (Japan)
17:15-17:18	Comparison of Acupuncture and Lumbar Traction in Reducing Subsequent Lumbar Fusion or Discectomy for Lumbar Disc Herniations: Real World Evidence from the Multinational Database	Sung Huang Laurent Tsai (Taiwan)
17:18-17:30	Discussion	

07:30-08:00	Breakfast Symposium	(Room A)
	Moderator: Jae-Young Hong (Korea)	Speaker
07:30-08:00	SK chemicals	TBD
08:00-08:30	Free paper 17 (Cervical)	(Room A)
	Moderator: Zenya Ito (Japan), Kyung-Chung Kang (Korea)	Speaker
08:00-08:05	Effect of fusion vs. pseudarthrosis on development of adjacent segment degeneration and disease after anterior cervical discectomy and fusion (ACDF), at least 5 years follow-up	Jun-Young Choi (Korea)
08:05-08:10	Research on the Mechanism of Discogenic Neck Pain Based on the Anatomy of the Cervical Sinuvertebral Nerve	Qinghao Zhao (China)
08:10-08:15	Age-related Postoperative Outcomes in Cervical Myelopathy Surgery: A Propensity-Matched Comparison Between Patients Aged ≥75 Years and Younger Patients	Bong Mo Koo (Korea)
08:15-08:20	The efficacy and safety of mini-open (air/water medium) endoscopy-assisted anterior cervical discectomy and fusion for the treatment of cervical spondylotic myelopathy	Hejun Yang (China)
08:20-08:30	Discussion	
08:30-09:00	Free paper 19 (Endoscopy-Cervical)	(Room A)
	Moderator: Chaisiri Chaichankul (Thailand), Byung Wan Choi (Korea)	Speaker
08:30-08:35	Comparison of Open Microscopic and Bi-portal Endoscopic Approaches in Multi-Level Posterior Cervical Foraminotomy: Radiological and Clinical Outcomes	Hyung-Rae Lee (Korea)
08:35-08:40	The Clinical Application and Related Anatomy of Cervical Laminectomy under Unilateral Biportal EndoscopicTechnique in Cervical Spinal Stenosis	Weibing Xu (China)
08:40-08:45	Clinical Efficacy of Percutaneous Endoscopic Treatment via the Lateral Mass Approach for Cervical Spondylotic Radiculopathy	Kexiao Yu (China)
08:45-08:50	Delta Large-Channel Endoscopy Versus Anterior Cervical Discectomy and Fusion for Cervical Spondylotic Radiculopathy: A Retrospective Cohort Study	Guo Weichun (China)
08:50-09:00	Discussion	
09:00-10:00	Symposium 7 (Endoscopic surgery: cervical)	(Room A)
	Moderator: Shrinivas Rohidas (India), Si Young Park (Korea)	Speaker
09:00-09:10	Unilateral Biportal Endoscopic Surgery for Degenerative Cervical Spine Diseases	Jwo-Luen Pao (Taiwan)
09:10-09:20	Endoscopy-Assisted Cervical Arthroplasty for Myelopathy Due to Cervical Disc Herniation and Spondylosis	Keng-Chang Liu (Taiwan)
09:20-09:30	Endoscopic cervical spine surgery- Destandau's technique	Shrinivas Rohidas (India)
09:30-09:40	Recent Techniques in Posterior Cervical Endoscopic Spine Surgery: A Literature Review	Sub-Ri Park (Korea)
09:40-09:50	Optimal and Relative Indications for Biportal Endoscopic Cervical Surgery	Seok-Bong Jung (Korea)
09:50-10:00	Discussion	
10:00-10:20	Coffee break	
10:20-11:00	Plenary lecture 2	(Room A+B)
	Moderator: Seok Woo Kim (Korea), Sang-Bum Kim (Korea)	Speaker
10:20-10:35	Surgical application of O-arm navigation	Michael Grevitt (UK)
10:35-10:50	Sharing experience of cervical total disc arthroplasty	Michael Grevitt (UK)
10:50-11:00	Discussion	
11:00-11:40	Invited lecture	(Room A+B)
	Moderator: Hyoung-Yeon Seo (Korea), Se-Jun Park (Korea)	Speaker
11:00-11:15	Ergonomic and spine surgery	Daniel Park (USA)
11:15-11:30	Next-Gen Spine Robotics: From prototype to Practice	Seong Yi (Korea)
11:30-11:40	Discussion	
11:40-12:40	Symposium 9 (Cervical spine)	(Room A)
	Moderator: Koji Sato (Japan), Jae Jun Yang (Korea)	Speaker
11:40-11:50	Recent advances in AI for cervical spin disease: A comprehensive review	Han-Dong Lee (Korea)
11:50-12:00	Complications in cervical spine surgery: Prevention and management strategies	Jiwon Park (Korea)
12:00-12:10	Anterior Approach in MIS/Endoscopic Cervical Surgery (vs ACDF)	Zenya Ito (Japan)
12:10-12:20	Things You must know for posterior cervical foraminotomy	Kyung-Chung Kang (Korea)
12:20-12:30	D/Dx of cervical radiculopathy from other musculoskeletal disease	Byung Wan Choi (Korea)
12:30-12:40	Discussion	
12:40	Adjourn & Closing remark	(Room A+B)

08:00-08:30	Free paper 18 (MIS fusion)	(Room B)
	Moderator: Naresh Kumar (Singapore), Deuk-Soo Jun (Korea)	Speaker
08:00-08:05	Clinical and Radiographical Efficacy of Single Prone Position Oblique Lateral Interbody Fusion in Lumbar Degenerative Disease	Yung-Hsueh Hu (Taiwan)
08:05-08:10	Overcoming Age Barriers: Oblique Lateral Interbody Fusion as a Safe Surgical Option for Super-Elderly Patients	Hee Jung Son (Korea)
08:10-08:15	Perioperative outcomes of octogenarian patients in OLIF surgery	Jaiwoo Chung (Korea)
08:15-08:20	Self-solidified calcium phosphate artificial bone with rhBMP-2 versus allograft bone for OLIF: a self-controlled, randomized and double-blind study	Jiancheng Zeng (China)
08:20-08:30	Discussion	
08:30-09:00	Free paper 20 (MIS fusion)	(Room B)
	Moderator: Jiancheng Zeng (China), Jin Hwan Kim (Korea)	Speaker
08:30-08:35	Is Intraoperative Force Measurement Effective for Cage Size Selection in Oblique Lateral Interbody Fusion (OLIF)? A Retrospective Study	Wen-Bo Wei (China)
08:35-08:40	A Novel Surgical Approach Using the “Lateral Corridor” for Minimally Invasive Oblique Lumbar Interbody Fusion at L5-S1: A Clinical Series and Technical Note	Hae-Dong Jang (Korea)
08:40-08:45	Single incision MIS-TLIF decompression for lumbar spondylolisthmia	Lei Kong (China)
08:45-08:50	Validating and Predicting the Impact of Socioeconomic Status on Early Outcomes Following Oblique Lumbar Interbody Fusion	Xiao Hu (China)
08:50-09:00	Discussion	
09:00-10:00	Symposium 8 (MIS fusion)	(Room B)
	Moderator: Luthfi Gatam (Indonesia), Chang-Nam Kang (Korea)	Speaker
09:00-09:10	Minimally invasive TLIF using tubular retractor	Jaewan Soh (Korea)
09:10-09:20	Avoiding endplate injuries in OLIF - tip and tricks	Jacob Oh (Singapore)
09:20-09:30	OLIF L5-S1 via lateral corridor	Taekeun Ahn (Korea)
09:30-09:40	Comparison of MIS-TLIF and Endo-LIF	Qingbing Meng (China)
09:40-09:50	OLLIF	Sunny Kim (USA)
09:50-10:00	Discussion	
10:00-10:20	Coffee break	
10:20-11:00	Plenary lecture 2	(Room A+B)
	Moderator: Heui Jeon Park (Korea), Seok Woo Kim (Korea)	Speaker
10:20-10:35	Surgical application of O-arm navigation	Michael Grevitt (UK)
10:35-10:50	Sharing experience of cervical total disc arthroplasty	Michael Grevitt (UK)
10:50-11:00	Discussion	
11:00-11:40	Invited lecture	(Room A+B)
	Moderator: Jae-Sung Ahn (Korea), Jae Hyup Lee (Korea)	Speaker
11:00-11:15	Ergonomic and spine surgery	Daniel Park (USA)
11:15-11:30	Next-Gen Spine Robotics: From prototype to Practice	Seong Yi (Korea)
11:30-11:40	Discussion	
11:40-12:40	Symposium 10 (Endoscopic surgery: fusion)	(Room B)
	Moderator: Qingbing Meng (China), Jae-Young Hong (Korea)	Speaker
11:40-11:50	Nerve Protection in Lumbar Endoscopic Fusion Surgery	Cheng-Li Lin (Taiwan)
11:50-12:00	Full endoscope assisted lumbar interbody fusion - recommendable indications	Jae Hung Shin (Korea)
12:00-12:10	Capability of Alignment Correction of Double-Cage Biportal Endoscopic Transforaminal Lumbar Interbody Fusion	Jwo-Luen Pao (Taiwan)
12:10-12:20	Endplate preparation in biportal endoscopic lumbar interbody fusion	Hyun-Jin Park (Korea)
12:20-12:30	Biportal endoscopic lumbar interbody fusion with 3D printed double cage: Technical note and preliminary result	Ju-Eun Kim (Korea)
12:30-12:40	Discussion	
12:40	Adjourn & Closing remark	(Room A+B)

08:00-08:30	Quick fire 9	Room C (Pearl room)
	Moderator: Ho-Jin Lee (Korea), Joonghyun Ahn (Korea)	Speaker
08:00-08:03	Early application of L-Unitary Soft Endoscopic anterior cervical discectomy decompression fusion for single-level cervical spondylotic myelopathy	Qinghao Zhao (China)
08:03-08:06	Biportal Endoscopic Thoracic Discectomy	Choi Seung-Hyun (Korea)
08:06-08:09	Introduction of Pao's Flash sign	Tali Hsu (Taiwan)
08:09-08:12	A Comparative Analysis of Postoperative Imaging and Functional Recovery between Endoscopic and Microscopic Assisted Cervical Discectomy: Evidence from a Retrospective Cohort Study	Shen Xianglin (China)
08:12-08:15	Cervical confluent root variation	Myeong-Guk JO (Korea)
08:15-08:18	Taking advantages of Unilateral Biportal Endoscopy in Thoracic Spinal Stenosis Decompression	Ping Liu (China)
08:18-08:30	Discussion	
08:30-09:00	Quick fire 10	Room C (Pearl room)
	Moderator: Ching Hsiao Yu (Taiwan), Sub-Ri Park (Korea)	Speaker
08:30-08:33	A New Pilot Hole Preparation System for Percutaneous Pedicle Screw Placement A Randomized Controlled Study	Haijian Ni (China)
08:33-08:36	The efficacy of biportal endoscopic decompression for thoracic ossification of ligamentum flavum with occupancy ratio > 60%	Liang Wang (China)
08:36-08:39	Efficacy and radiographic analysis of oblique lumbar interbody fusion in treating lumbar spondylolisthesis with sagittal imbalance.	Eun-Min Seo (Korea)
08:39-08:42	Association of Open Transforaminal Lumbar Interbody Fusion with Increased Postoperative Complications Compared to Minimally Invasive Transforaminal Lumbar Interbody Fusion	Ching-Yu Lee (Taiwan)
08:42-08:45	OLIF with Anterolateral screws : Is it necessary to do Anterior /Posterior Surgery	K. Karthik Kailash (India)
08:45-09:00	Discussion	