

	09:00-09:45	Hiroshi Yamada	Japan
	Faculty Lecture 1-3	Seok Woo Kim	Korea
FL1	Medical reform of navigation technology in minimally invasive spinal treatment (MIST)	Ken Ishii	Japan
FL2	The Concept of Vesselplasty in Osteoporotic Vertebral Fractures	Darwono A. Bambang	Indonesia
FL3	Minimal Access Non-Fusion Surgery for Idiopathic Scoliosis	Hee-Kit Wong	Singapore
	09:55-10:20	Fujio Ito	Japan
	Free Paper 1 Full End Discectomy	Keng-Chang Liu	Taiwan
FP1-1	Transforaminal full-endoscopic discectomy for the patients with down-migrated lumbar disc herniation under local anesthesia	Fumitake Tezuka	Japan
FP1-2	Clinical results of transforaminal full-endoscopic lumbar discectomy for lumbar disc herniation combined with asymptomatic spinal canal stenosis	Jiro Hirayama	Japan
FP1-3	Withdraw		
FP1-4	Comparison of the efficacy of electromagnetic navigation and C-arm fluoroscopy guided percutaneous endoscopic transforaminal discectomy in the treatment of lumbar disc herniation: 2-Year Follow-Up Study	Yongpeng Lin	China
	10:20-10:50	Haruki Funao	Japan
	Free Paper 2 Full End Decompression	Ho-Jin Lee	Korea
FP2-1	How to cope an open posterior lumbar decompression surgery using single-portal spinal endoscope(Delta)?	Hongjian Wang	China
FP2-2	Percutaneous stenosis endoscopic lumbar decompression for the lumbar stenosis	Fujio Ito	Japan
FP2-3	Early return to work after minimally invasive full endoscopic decompression surgery in medical doctors: a case series.	Kosuke Sugiura	Japan
FP2-4	Full Endoscopic Treatment for Symptomatic Cage Migration after Lumbar Interbody Fusion	Keng-Chang Liu	Taiwan
FP2-5	Selection of surgical approach for the treatment of thoracic spinal stenosis by percutaneous spinal endoscopy	Jingwei Bi	China

	10:55-11:25 PASMIS Seminar 1 co-sponsored by elliquence international	Koichi	Sairyo	Japan
PS1-1	The Evolution of Lumbar Discectomy Surgery: Making the Transition from Microdiscectomy to Endodiscectomy	Choll	Kim	USA
PS1-2	Full Endoscopic KLIF-The minimally invasive interbody fusion	Koichi	Sairyo	Japan
	11:25-11:55 PASMIS Seminar 2	Munehito	Yoshida	Japan
PS2	Pros & Cons of Full Endoscopic Lumbar Spinal Decompression and Fixation	Akira	Dezawa	Japan
	12:00-12:30 Special Lecture 1	Shinichi	Konno	Japan
SL1	Sustainable Development Goals (SDGs) of Full-Endoscopic Spine Surgery	Koichi	Sairyo	Japan
	13:00-13:25 Free Paper 3 Full Endoscopic LIF 1	Fumitake	Tezuka	Japan
		Eung Ha	Kim	Korea
FP3-1	Clinical outcomes of full-endoscopic trans-Kambin lumbar interbody fusion (KLIF): Case report and technical note.	Koichiro	Ono	Japan
FP3-2	Percutaneous Full Endoscopic Kambin's Lumbar Interbody Fusion (PE-KLIF) using an 8 mm outer-sheath	Fujio	Ito	Japan
FP3-3	Full endoscopic trans-Kambin triangle lumbar interbody fusion: technique and clinical outcome.	Masatoshi	Morimoto	Japan
FP3-4	An Innovative Percutaneous Endoscopic Transforaminal Lumbar Interbody Fusion for the Treatment of Lumbar Spinal Stenosis with Degenerative Instability: a prospective cohort study	Peng	Yin	China
	13:25-13:50 Free Paper 4 Full Endoscopic LIF 2	Akira	Dezawa	Japan
		Zhen-Zhou	Li	China
FP4-1	How to cope a posterior lumbar interbody fusion surgery using single-portal spinal endoscope? Application value and boundary of Endo-P/TLIF.	Hongjian	Wang	China
FP4-2	Expandable cage design for Lumbar Interbody Fusion	Jing-Jing	Fang	Taiwan
FP4-3	Application of Anterior Expandable Cylindrical Fusion Cages in Full Endoscopic Lumbar Interbody Fusion: Technical Notes and 1-year	Zhen-Zhou	Li	China
FP4-4	Biportal endoscopic posterior lumbar decompression and vertebroplasty for extremely elderly patients affected by lower lumbar delayed vertebral collapse with lumbosacral radiculopathy	Hyun-Jin	Park	Korea

	14:00-14:15 PASMISS Seminar 3 co-sponsored by HOYA Technosurgical	Takuya	Nikaido	Japan
PS3	Our action for domestic production of surgical instruments. (RENGTM Project)	Shinobu	Kanai	Japan
	14:15-14:30 PASMISS Seminar 4 co-sponsored by Zimmer Biomet	Yuichi	Takano	Japan
PS4	Let's master the power tool for screw insertion	Masatsune	Yamagata	Japan
	14:30-14:50 Invited Lecture 1	Hiroaki	Nakamura	Japan
IL1	To Establish Clearer Evidence in Vertebral Augmentation – Biomaterial and Timing of Surgical Indication Considering Patients' Age	Daisuke	Togawa	Japan
	14:55-15:20 Free Paper 5 Osteoporosis	Yutaka Ming-Chau	Hiraizumi Chang	Japan Taiwan
FP5-1	Importance of early diagnosis and treatment of osteoporotic vertebral body fractures	Masatoshi	Teraguchi	Japan
FP5-2	Whether the sandwich vertebral bodies (SVBs) have a higher risk of develop new fracture after vertebral augmentation (VA)?	Yaoshen	Zhang	China
FP5-3	Balloon Kyphoplasty for osteoporotic thoracolumbar vertebral fracture with diffuse idiopathic skeletal hyperostosis	Yoshio	Enyo	Japan
FP5-4	Clinical outcomes and 3D morphological evaluation of percutaneous unilateral SpineJack kyphoplasty in elderly fragile burst factures	Wei-Yu	Li	Taiwan
	15:20-15:45 Free Paper 6 Annular Repair	Kazuhiro Hyoung-Yeon	Takeuchi Seo	Japan Korea
FP6-1	A novel annular repair technique combined with Platelet-Rich Plasma intradiscal injection : A new serial therapeutic model for the treatment of lumbar disc herniation	En	Song	China
FP6-2	A new full endoscopy intradiscal irrigator combined with a novel annular repair device for the treatment of lumbar disc herniation	En	Song	China
FP6-3	Percutaneous laser disc decompression compared to percutaneous endoscopic lumbar discectomy for symptomatic contained lumbar disc herniation	Guo	Han	China
FP6-4	New treatment concept: Full-endoscopic disc cleaning for type 1 Modic change	Takashi	Inokuchi	Japan

	15:55-16:20	Kazuo	Nakanishi	Japan
	Free Paper 7 Full Endo Cervical	Kuo-Yuan	Huang	Taiwan
FP7-1	Full endoscopic posterior cervical foraminotomy in management of foraminal disc herniation and foraminal stenosis	Asrafi Rizki	Gatam	Indonesia
FP7-2	Percutaneous posterior endoscopic cervical discectomy for the vertebral artery compression by cervical osteophyte	Jianye	Wang	China
FP7-3	Full-endoscopic uniportal odontoidectomy for the treatment of basilar impression	Nahoko	Kikuchi	Japan
FP7-4	Effect of cervical micro-endoscopic laminotomy on quality of life: evaluation at 1 year after surgery compared with conventional posterior decompression in patients with cervical myelopathy	Hiroshi	Kobayashi	Japan
	16:20-17:00	Zenya	Ito	Japan
	Free Paper 8 UBE	Youk-Sang	Kwon	Korea
FP8-1	Unilateral biportal endoscopic thoracic decompression for management of flavum ligament ossification. Is it enough to improve clinical outcome?	Asrafi Rizki	Gatam	Indonesia
FP8-2	Choice of endoscopic techniques for lumbar disc herniation and stenosis, percutaneous endoscopic lumbar discectomy, mobile microendoscopic discectomy and unilateral biportal endoscopy	Baoshan	Xu	China
FP8-3	advantages and disadvantages of the application of transforaminal endoscopy in unilateral biportal endoscopic spinal surgery technique	Hongjian	Wang	China
FP8-4	Biportal Endoscopic Interlaminar Lumbar Spine Decompression and Discectomy: Detailed Technique, Learning Curve and Pitfalls for Beginners	Omar	Luthfi	Indonesia
FP8-5	Comparison of UBELD and PELD in Early Learning Curve of Lumbar Disc Herniation	Xianglong	Meng	China
FP8-6	Clinical comparison of unilateral biportal endoscopic laminotomy versus microendoscopic laminotomy for single-level laminotomy: a single-center, retrospective analysis -	Zenya	Ito	Japan
	17:00-17:25	Hiroshi	Hashizume	Japan
	Free Paper 9 MEL	Luthfi	Gatam	Indonesia
FP9-1	Long-term outcomes following lumbar microendoscopic decompression for lumbar spinal stenosis with and without degenerative spondylolisthesis: Minimum 10-year follow-up	Takato	Aihara	Japan
FP9-2	Ten years follow-up of microendoscopic laminotomy for lumbar spinal stenosis	Keiji	Nagata	Japan
FP9-3	Microendoscopic decompression for lumbosacral foraminal stenosis: a novel surgical strategy based on anatomical considerations using 3D image fusion with MRI/CT	Shizumasa	Murata	Japan

FP9-4	Risk of Reoperation and Infection after Percutaneous Endoscopic Lumbar Discectomy and Open Lumbar Discectomy: A Nationwide Population-Based Study	Taewook	Kang	Korea
	17:35-18:50	Toru	Hasegawa	Japan
	Faculty Lecture 4-8	Yen-Mou	Lu	Taiwan
FL4	Technical tips & pitfalls of microendoscopic decompression & fusion for lumbar foraminal stenosis	Hiroshi	Yamada	Japan
FL5	Full-endoscopic transforaminal decompression of exiting and traversing nerve: proctorship guidance and lessons from cases	Jin-Sung	Kim	Korea
FL6	The idea of Intra Spinal Canal Treatment	Koji	Sato	Japan
FL7	Minimally invasive trans-sacral canal plasty for failed back surgery syndrome	Haruki	Funao	Japan
FL8	Trans-Sacral Epiduroscopic Laser Decompression (SELD)	Zenya	Ito	Japan