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KSSSS 2022

The International Congress of
Korean Society of Spine Surgery

May 26 (Thu) - 28 (Sat), 2022
Swiss Grand Hotel Seoul, Korea

Program Book

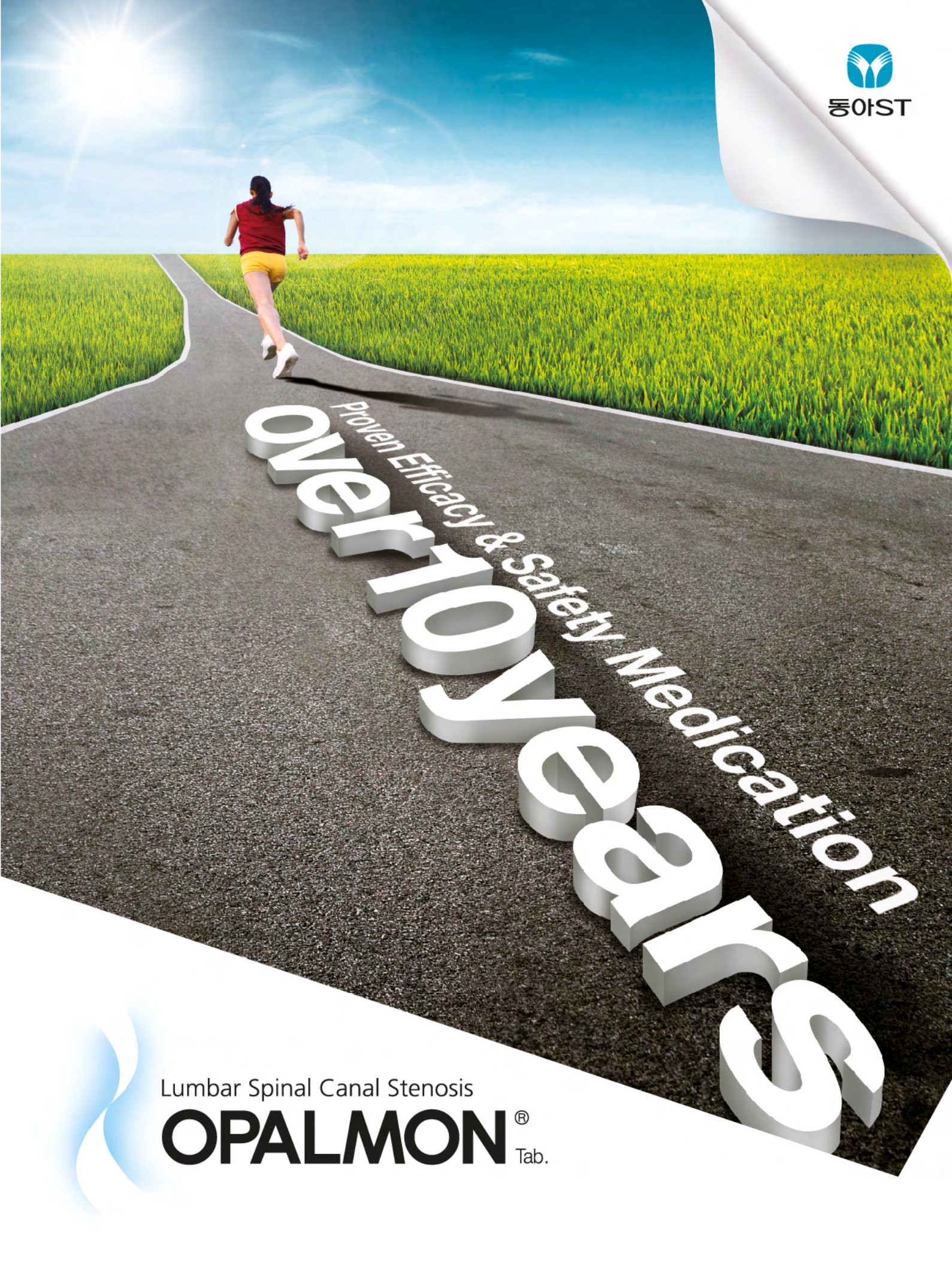




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Reference 1. Cosman F, et al. *N Engl J Med*. 2016;375:1532-1543.



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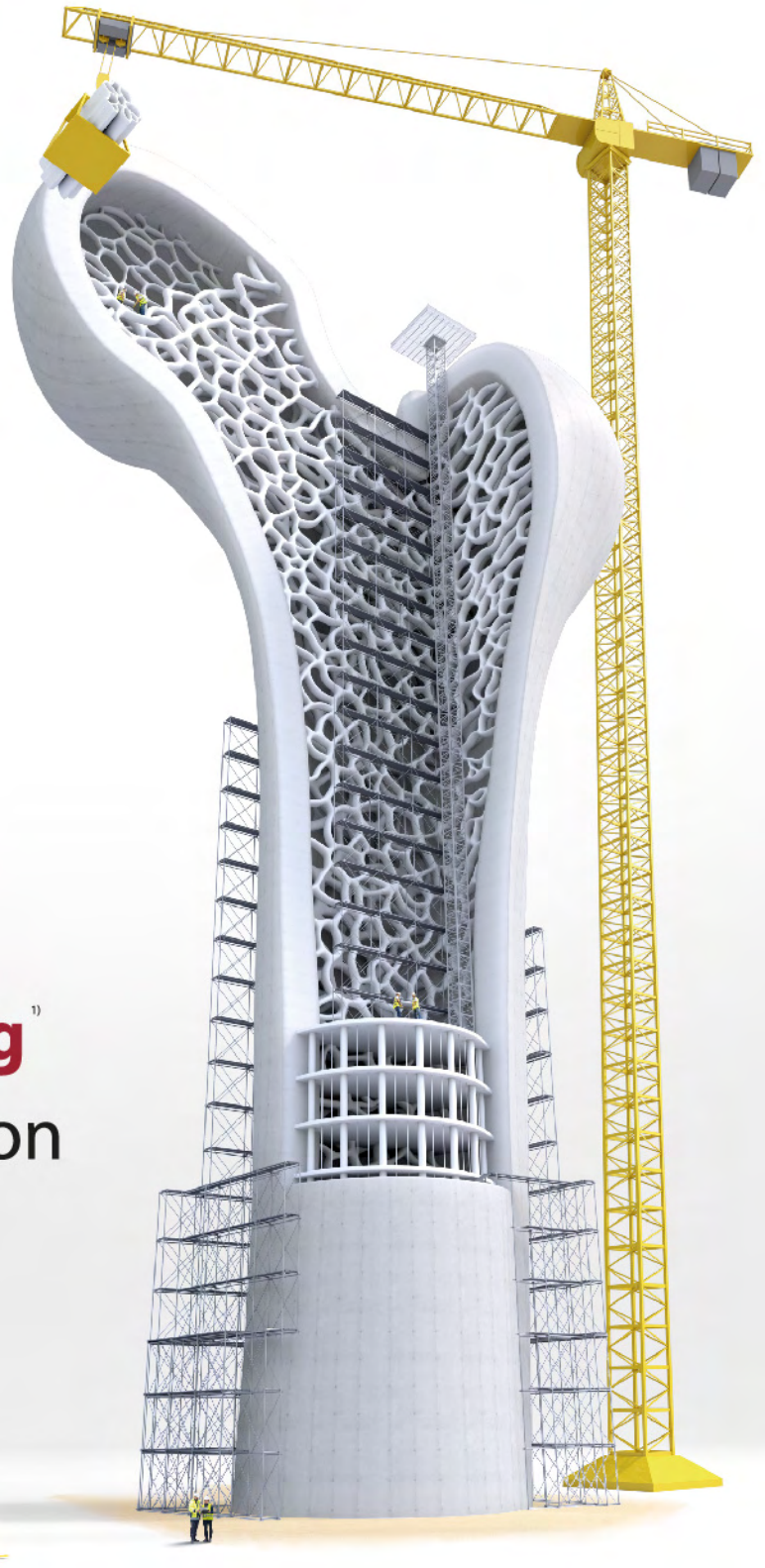
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KSSS 2022

The International Congress of
Korean Society of Spine Surgery

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Welcome Message

On behalf of the Korean Society of Spine Surgery, we are delighted to invite you to the 3rd International Congress of the Korean Society of Spine Surgery (KSSS 2022).

Along with remarkable development in spine surgery, KSSS has constantly been striving to contribute to the promotion of human health through advancement in spinal disease research and treatment for the last 38 years since its foundation in 1984. For enhancing our successful accomplishment, we would like to have a meaningful opportunity to share scientific knowledge and in-depth opinions for progressive technology with this international academic congress.

We face a new era of technological civilization, called 'The Fourth Industrial Revolution'. To seek directions on the right path to development and prepare for the rapid change in this vast wave, we would like to gather various opinions and perspectives with our participants through interpersonal communication across diverse cultures.

The KSSS 2022 will be a great moment for all delegates and participants to share a broad scope of knowledge in spinal surgery. With professional and academic insights into spine surgery, we are very confident that the KSSS 2022 will be a center of spine academics, hoping this congress will be a place for a strong friendship.

We cordially invite you to enjoy this unique event offered by the KSSS 2022. I would like to wish the best for all participants to fully explore the scientific realms of spine surgery and gain deeper insights as well as sources for further research and studies.

I wish all of you tremendous success and peace.

Yours sincerely,

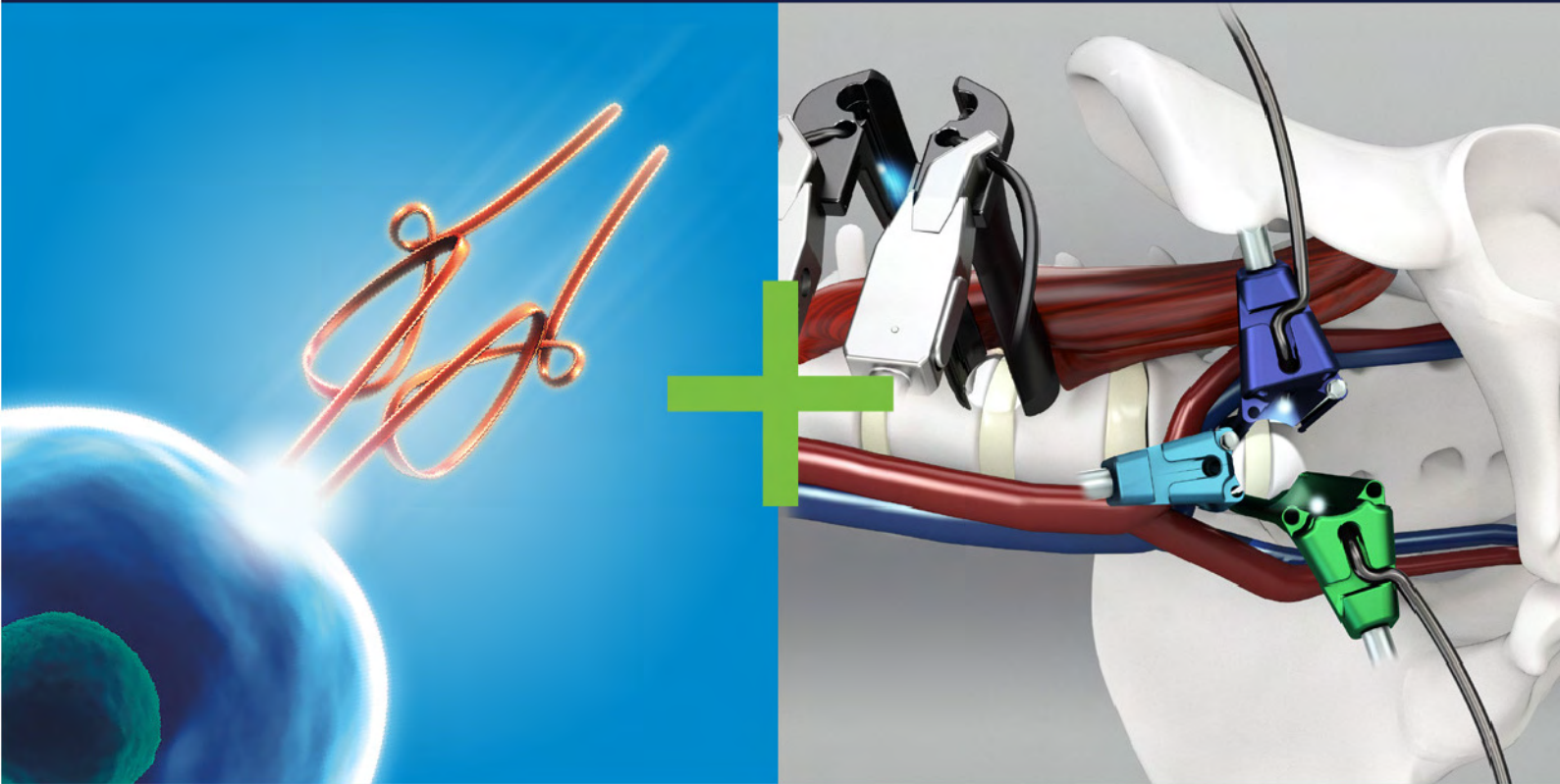


A stylized handwritten signature in black ink, consisting of several fluid, connected strokes.

Bong-Soon Chang, MD., PhD
President of Korean Society of Spine Surgery

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References

1. URBIST MSJ(2020)838 Kwon J, Rosenstock J, et al. Pregabalin for the treatment of painful diabetic peripheral neuropathy: a double-blind, placebo-controlled trial. *Ann. Intern. Med.* 2004;140:628-38. Mu A, et al. Pharmacological management of chronic neuropathic pain: Review of the Canadian Pain Society consensus statement. *Can Fam Physician* 2007;63(1):844-52. 4. American Diabetes Association. 1. Microvascular Complications and Foot Care: Standards of Medical Care in Diabetes-2020. *Diabetes* 2020;43(Suppl.1):S133-51. 5. CREST. Guidelines on the management of neuropathic pain (February 2008). Available at: <http://rita.112.129.85uplodfiles.com/414933364.pdf> [Accessed on 26 Mar 2020]. 6. Attal N, et al. ETV5 guidelines on the pharmacological treatment of neuropathic pain: 2010 revision. *Eur J Neurol* 2010;17(9):1183-93. 7. Martinez V, et al. Adherence of French GPs to chronic neuropathic pain clinical guidelines: a cross-sectional study. *Ann Fam Pract* 2010;22(12):1993-8. 8. Balentine JC, et al. Diagnosis and Classification of Neuropathic Pain. *Brain Clin J Neurol* 2010;18(7):1-11. 9. Freynhagen R, et al. A comprehensive drug safety evaluation of pregabalin in peripheral neuropathic pain. *Pain Pract* 2015;15(1):45-57. 10. www.kci.go.kr에서 검색한 결과에 따르면 2016.06.09.

주요 안전성 정보 | 리리카® 캡슐 리리카® CR 서방정의 가장 흔하게 보고된 이상반응은 어지러움 및 졸음이었으며, 이상반응은 대체로 검증에서 중등도로 나타남

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Program at a Glance

May 26_Thursday

18:00 - 20:00	Welcome Reception (Diamond Hall 3F)
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May 27_Friday

Time	Convention Hall A	Convention Hall B
08:00 - 08:20	Opening Remarks (Convention Hall A+B)	
08:20 - 08:50	Basic Research I	Deformity I
08:50 - 09:20	Basic Research II	Deformity II
09:20 - 09:50	Lumbar I	Deformity III
09:50 - 10:10	Invited Lecture I	Invited Lecture II
10:10 - 10:30	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	
10:30 - 11:30	Symposium (Deformity)	Symposium (MIS)
11:30 - 12:40	Asian Spine Society Presidential Session (Convention Hall A+B)	
12:40 - 13:40	Luncheon Symposium	Luncheon Symposium
13:40 - 14:30	Plenary Lecture I (Convention Hall A+B)	
14:30 - 14:50	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	
14:50 - 15:10	Invited Lecture III	Invited Lecture IV
15:10 - 15:40	Lumbar II	MIS I
15:40 - 16:10	Lumbar III	MIS II
16:10 - 16:40	Lumbar IV	MIS III
16:40 - 17:10	KSSS General Assembly (Convention Hall A)	
17:30 - 20:00	Gala Dinner (Diamond Hall 3F)	

May 28_Saturday

Time	Convention Hall A	Convention Hall B
08:00 - 08:30	Best Paper Candidates Presentation I (Domestic)	Cervical I
08:30 - 09:00	Best Paper Candidates Presentation II (Domestic)	Cervical II
09:00 - 09:30	Best Paper Candidates Presentation III (Domestic)	Cervical III
09:30 - 10:00	Best Paper Candidates Presentation IV (International)	Cervical IV
10:00 - 10:20	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	
10:20 - 10:50	Best Paper Candidates Presentation V (International)	Cervical V
10:50 - 11:20	Best Paper Candidates Presentation VI (International)	Tumor & Infection
11:20 - 11:40	Invited Lecture V	Invited Lecture VI
11:40 - 12:30	Plenary Lecture II (Convention Hall A+B)	
12:30 - 13:30	Luncheon Symposium	Luncheon Symposium
13:30 - 14:30	Symposium (Lumbar)	Symposium (Cervical)
14:30 - 14:50	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	
14:50 - 15:20	Lumbar V	Trauma
15:20 - 15:50	Lumbar VI	Miscellaneous
15:50 - 16:10	Best Paper Awards (Convention Hall A)	
16:10 - 16:20	Closing Remarks (Convention Hall A)	
16:20 - 16:30	Farewell and Inauguration Ceremony for the President of KSSS (Convention Hall A)	

May 27 (Fri) Convention Hall A

Scientific Program

08:00 - 08:20	Opening Remarks (Convention Hall A+B)	Bong-Soon Chang (President of KSSS)
08:20 - 08:50	Basic Research I	Moderator: Seong-Hwan Moon (Korea), Gun-Woo Lee (Korea)
08:20 - 08:25	S001 Efficacy of Bone Graft Materials for Spinal Fusion in a Rabbit Model	Bo-Seung Choi (Korea)
08:25 - 08:30	S002 The Association between Thoracolumbar Kyphosis and Osteoporosis in Postmenopausal Women	Tae-Sik Goh (Korea)
08:30 - 08:35	S003 Suramin Attenuates Intervertebral Disc Degeneration by Inhibiting NF-KB Signaling Pathway	Shih-Hsiang Chou (Taiwan)
08:35 - 08:40	S004 Automatic Lumbar Spinal Stenosis Grading in Multiple Lumbar Magnetic Resonance Imaging Using Deep Convolutional Neural Networks	Suk-Joong Lee (Korea)
08:40 - 08:50	Discussion	
08:50 - 09:20	Basic Research II	Moderator: Jae Hyup Lee (Korea), Tae-Hwan Kim (Korea)
08:50 - 08:55	S005 Balloon Compression Spinal Cord Injury in Animal Model Using Canine and Capra	Yudha Mathan Sakti (Indonesia)
08:55 - 09:00	S006 Human Epidural AD-MSC Exosomes Improve Function Recovery after Spinal Cord Injury in Rats	Gun-Woo Lee (Korea)
09:00 - 09:05	S007 Does the Intradiscal Steroid Injection Make Degenerative Change on Disc? : Histological Analysis of Human Disc Obtained from Discectomy	Sung-Tan Cho (Korea)
09:05 - 09:10	S008 Analysis of Postoperative Delirium after Spinal Surgery Using an Electroencephalography Detecting Wearable Device: A Pilot Study	Soo-Bin Lee (Korea)
09:10 - 09:20	Discussion	
09:20 - 09:50	Lumbar I	Moderator: Chang Hwa Hong (Korea), Sang Bum Kim (Korea)
09:20 - 09:25	S009 Comparison of Adjacent Segmental Diseases after Minimally Invasive and Open Transforaminal Lumbar Interbody Fusion: 10-Year Results	Jae-Won Shin (Korea)
09:25 - 09:30	S010 Association of Risk Factors for Early Onset Radiographic Degenerative Changes in the Sacroiliac Joint after Lumbar and Lumbosacral Fusion	Joon-Oh Seo (Korea)
09:30 - 09:35	S011 Retrospective Analysis of Bilateral Transforaminal Lumbar Interbody Fusion Using PEEK versus 3D Printed Porous Titanium Alloy Cage	Eugene J. Park (Korea)
09:35 - 09:40	S012 Comparison of Unilateral Instrumented Transforaminal Lumbar Interbody Fusion and Posterior Lumbar Interbody Fusion in Lumbar Degenerative Diseases: A Minimum of 5-year Follow-up	Sung-Cheol Park (Korea)
09:40 - 09:50	Discussion	
09:50 - 10:10	Invited Lecture I	Moderator: Hak-Sun Kim (Korea)
09:50 - 10:05	Surgical Treatment of Intramedullary Spinal Cord Tumors	Masaya Nakamura (Japan)
10:05 - 10:10	Discussion	
10:10 - 10:30	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	

May 27 (Fri) Convention Hall A

Scientific Program

10:30 - 11:30	Symposium: Deformity (Management of Spinal Deformity in Patients with Parkinson's Disease)	Moderator: Hak-Sun Kim (Korea) Jung-Hee Lee (Korea)
10:30 - 10:45	Preoperative Medical Considerations	Sam-Yeol Chang (Korea)
10:45 - 11:00	Surgical Treatment and Prevention of Postoperative Complications	Ho-Joong Kim (Korea)
11:00 - 11:15	Postoperative Management and Rehabilitational Considerations	Jae Hyuk Yang (Korea)
11:15 - 11:30	Discussion	
11:30 - 12:40	Asian Spine Society Presidential Session (Convention Hall A+B)	Moderator: Tae Kyun Kim (Korea)
11:30 - 11:40	Lateral Mass Screw Insertion: Surgical Technique	Zamzuri Zakaria (Malaysia)
11:40 - 11:50	Atlanto-axial Instability	Bimal Kumar Pandey (Nepal)
11:50 - 12:00	Surgical Management in Diffuse Idiopathic Skeletal Hyperostosis (DISH) the Cervical Spine	Torphong Bunmaprasert (Thailand)
12:00 - 12:05	Discussion	
12:05 - 12:15	MIS in Metastatic Spine Disease	Ronald P. Tangente (Philippines)
12:15 - 12:25	Tumors of the Spine in Indonesia: Current and Future Development	Andhika Yudistira (Indonesia)
12:25 - 12:35	Degenerative Scoliosis Treatment Using Extreme Lateral Lumbar Interbody Fusion	Dinh Ngoc Son (Vietnam)
12:35 - 12:40	Discussion	
12:40 - 13:40	Luncheon Symposium (Daewon), (Amgen)	Moderator: Bong-Soon Chang (Korea)
12:40 - 13:10	Medical Treatment of OA; Combined Therapy	Kyung-Chung Kang (Korea)
13:10 - 13:40	Romozosumab to Rebuild the Foundation of Bone Strength	Chang Hwa Hong (Korea)
13:40 - 14:30	Plenary Lecture I (Convention Hall A+B)	Moderator: Yong-Soo Choi (Korea)
13:40 - 14:00	Sagittal Balance vs Sagittal Alignment: The Best Way for Sagittal Contour Assessment	
14:00 - 14:20	How Using Sagittal Alignment to Explain PJK Mechanism	Pierre Roussouly (France)
14:20 - 14:30	Discussion	
14:30 - 14:50	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	

May 27 (Fri) Convention Hall A

Scientific Program

14:50 - 15:10	Invited Lecture III	Moderator: Chang-Hoon Jeon (Korea)
14:50 - 15:05	Post-operative Dysphagia	Kam Kwong Wong (Hong Kong)
15:05 - 15:10	Discussion	
15:10 - 15:40	Lumbar II	Moderator: Hwa-Yeop Na (Korea), Jae-Hwan Cho (Korea)
15:10 - 15:15	S013 The Change of Segmental Spinopelvic Sagittal Parameters after Total Hip Arthroplasty	Gyu-Bok Kang (Korea)
15:15 - 15:20	S014 The Effect of Spinopelvic Parameters on Anterior Bone Graft Subsidence in Surgical Treatment of Pyogenic Lumbar Spondylodiscitis	Meng-Huang Wu (Taiwan)
15:20 - 15:25	S015 Comparison of Complications and Sagittal Segmental Fusion Angle at Primary Instrumented Lumbar Fusion According to Pedicle Screw Handling Type in Patients Who Underwent Revision Surgery	Joong-Suk Cha (Korea)
15:25 - 15:30	S016 A New Approach to Revision Surgery in an Instrumented Thoracolumbar Spine - A Feasibility Study of 33 Cases	Vijay H D Kamath (India)
15:30 - 15:40	Discussion	
15:40 - 16:10	Lumbar III	Moderator: Hong-Moon Sohn (Korea), Byung Ho Lee (Korea)
15:40 - 15:45	S017 Feasibility and Safety of a CaO-SiO ₂ -P ₂ O ₅ -B ₂ O ₃ Bioactive Glass Ceramic Spacer in Posterior Lumbar Interbody Fusion: A Prospective Randomized Controlled Trial	Byung-Taek Kwon (Korea)
15:45 - 15:50	S018 Clinical Results According to Muscle Volume in Patients with Acute Osteoporotic Lumbar Compression Fracture	Yeong-Tae Kim (Korea)
15:50 - 15:55	S019 L5/S1 Mild to Moderate Foraminal Stenosis and Clinical Outcome after L4/5 Lumbar Fusion Surgery	Hyung-Rae Lee (Korea)
15:55 - 16:00	S020 Changes and Affecting Factors of Sagittal Alignment after Decompressive Laminectomy for Lumbar Spinal Stenosis: Analysis Using the EOS Imaging System	Hyung-Youl Park (Korea)
16:00 - 16:10	Discussion	
16:10 - 16:40	Lumbar IV	Moderator: Youngdo Koh (Korea), Young-Bae Kim (Korea)
16:10 - 16:15	S021 What Is the Real Culprit of a Postoperative Spinal Epidural Hematoma in a Hypertension Patient?	Young-Rok Go (Korea)
16:15 - 16:20	S022 Lateral Lumbar Interbody Fusion (LLIF) and Percutaneous Screw Fixation Showed Lower Incidence of Radiological Adjacent Segment Pathology (ASP) than Posterior Lumbar Interbody Fusion (PLIF) and Open Pedicle Screw Fixation	Hak-Soo Kim (Korea)
16:20 - 16:25	S023 Midterm Outcomes of Muscle-preserving Posterior Lumbar Decompression via Sagittal Splitting of the Spinous Process: Minimum 5-Year Follow-up	Hee-Jung Son (Korea)
16:25 - 16:30	S024 Validation of Digital-online Based Clinical Questionnaire in the Lumbar Spine	Jae-Hyuk Shin (Korea)
16:30 - 16:40	Discussion	
16:40 - 17:10	KSSS General Assembly (Convention Hall A)	
17:30 - 20:00	Gala Dinner (Diamond Hall 3F)	

May 27 (Fri) Convention Hall B

Scientific Program

08:00 - 08:20	Opening Remarks (Convention Hall A+B)	Bong-Soon Chang (President of KSSS)
08:20 - 08:50	Deformity I	Moderator: Seung-Woo Suh (Korea), Ho-Joong Kim (Korea)
08:20 - 08:25	S025 The Utility of High-density Pedicle Screw Construct with Direct Vertebral Derotation of the Lowest Instrumented Vertebra in Selective Thoracic Fusion for Adolescent Idiopathic Scoliosis: Comparison of Two Different Surgical Strategies	Sam-Yeol Chang (Korea)
08:25 - 08:30	S026 Non Fusion Anterior Scoliosis Correction (NFASC) for Double Sided Adolescent Idiopathic Scoliosis (AIS) Curves in Skeletally Mature Children: Clinico-radiological Outcomes with 2 Years Follow-up	Keyur Kantilal Akbari (India)
08:30 - 08:35	S027 Changes in Sagittal Spino-pelvic Parameters and Hip Subluxation after Surgery for Non Ambulatory NM Scoliosis	Sun-Kyu Kim (Korea)
08:35 - 08:40	S028 Shoulder Balance Outcome Analysis in Posterior Correction for Patients with Adolescent Idiopathic Scoliosis: C7 Tilt Angle as a Surrogate Parameter for Postoperative Shoulder Balance and Its Clinical Implications for Upper Instrumented Vertebra Level Sele	Jui-Yo Hsu (Taiwan)
08:40 - 08:50	Discussion	
08:50 - 09:20	Deformity II	Moderator: Weon Wook Park (Korea), Chang Ju Hwang (Korea)
08:50 - 08:55	S029 Long-Term Influence of Paraspinal Muscle Quantity in Adolescent Idiopathic Scoliosis Following Deformity Correction by Posterior Approach	Hong-Jin Kim (Korea)
08:55 - 09:00	S030 Effect of Posterior Crack Osteotomies on Coronal and Sagittal Balance in Fused Scoliosis Deformity Caused by Previous Surgery: Mid-Term Results	Yun-Jin Nam (Korea)
09:00 - 09:05	S031 Assessment of Sarcopenia in Young Patients with Neuromuscular Disease and the Association with Scoliosis or Ambulatory Function	Yong-June Suk (Korea)
09:05 - 09:10	S032 Early Scoliosis Treatment Results and Pitfalls Using of Magnetic Controlled Growing Rods (MCGR)	Ja-Yeong Yoon (Korea)
09:10 - 09:20	Discussion	
09:20 - 09:50	Deformity III	Moderator: Ye-Soo Park (Korea), Dong-Gune Chang (Korea)
09:20 - 09:25	S033 Sarcopenia as a Risk Factor of Proximal Junctional Kyphosis and Proximal Junctional Failure Following Adult Spinal Deformity Surgery	Jin-Seong Park (Korea)
09:25 - 09:30	S034 Impacts of Additional Rod Technique on Rod Fracture in Adult Spinal Deformity Surgery: Analysis of Two Hundred Thirty-nine Patients	Cheol-Hyun Jung (Korea)
09:30 - 09:35	S035 The Effect of Preoperative Spinopelvic Compensation States on Patient-Reported Outcome (PRO) of Adult Spinal Deformity Surgery: Using Three-dimensional Motion Analysis Results	Dae-Woong Ham (Korea)
09:35 - 09:40	S036 Radiological Outcome after a Modified Anterior Column Realignment in Oblique Lateral Interbody Fusion	Nam-Su Chung (Korea)
09:40 - 09:50	Discussion	
09:50 - 10:10	Invited Lecture II	Moderator: Kyu-Jung Cho (Korea)
09:50 - 10:05	Novel, Safe, and Easy Spinal Osteotomy for Regional Kyphotic Deformities	Cheng Hung Lee (Taiwan)
10:05 - 10:10	Discussion	
10:10 - 10:30	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	

May 27 (Fri) Convention Hall B

Scientific Program

10:30 - 11:30	Symposium: MIS	
10:30 - 10:50	MIS Technique in Revision Surgery	Moderator: Keun Ho Park (Korea), Seok Woo Kim (Korea)
10:30 - 10:34	Uniportal Endoscopic Application in Revision Surgery	Myung-Soo Youn (Korea)
10:34 - 10:38	Application with Biportal Endoscope	Ju-Eun Kim (Korea)
10:38 - 10:42	Application with Tubular Retractor	Seung-Pyo Suh (Korea)
10:42 - 10:46	Application with Anterior Technique	Jin-Sung Park (Korea)
10:46 - 10:50	Discussion	
10:50 - 11:10	Technical Tips of MIS Fusion Surgery	Moderator: Ki-Tack Kim (Korea), Chang-Nam Kang (Korea)
10:50 - 10:55	Using Endoscopy	Hyun-Jin Park (Korea)
10:55 - 11:00	Using Tubular Retractor	Ki-Hyoung Koo (Korea)
11:00 - 11:05	Using LLIF Technique	Jae-Young Hong (Korea)
11:05 - 11:10	Discussion	
11:10 - 11:30	Current Issues of MIS Surgery	Moderator: Whoan Jeang Kim (Korea), Yung Park (Korea)
11:10 - 11:14	Decompression-only for Lumbar Degenerative Spondylolisthesis	Dae-Jung Choi (Korea)
11:14 - 11:18	Cervical and Thoracic Biportal Endoscopic Surgery	Seok-Bong Jung (Korea)
11:18 - 11:22	Thoracolumbar Fracture (PPF vs Conventional Fusion)	Eun-Min Seo (Korea)
11:22 - 11:26	OVCF (Kyphoplasty vs Vertebroplasty)	Ki-Youn Kwon (Korea)
11:26 - 11:30	Discussion	
11:30 - 12:40	Asian Spine Society Presidential Session (Convention Hall A+B)	Moderator: Tae Kyun Kim (Korea)
11:30 - 11:40	Lateral Mass Screw Insertion: Surgical Technique	Zamzuri Zakaria (Malaysia)
11:40 - 11:50	Atlanto-axial Instability	Bimal Kumar Pandey (Nepal)
11:50 - 12:00	Surgical Management in Diffuse Idiopathic Skeletal Hyperostosis (DISH) the Cervical Spine	Torphong Bunmaprasert (Thailand)
12:00 - 12:05	Discussion	
12:05 - 12:15	MIS in Metastatic Spine Disease	Ronald P. Tangente (Philippines)
12:15 - 12:25	Tumors of the Spine in Indonesia: Current and Future Development	Andhika Yudistira (Indonesia)
12:25 - 12:35	Degenerative Scoliosis Treatment Using Extreme Lateral Lumbar Interbody Fusion	Dinh Ngoc Son (Vietnam)
12:35 - 12:40	Discussion	
12:40 - 13:40	Luncheon Symposium (Dong-A ST), (DePuy Synthes)	Moderator: Yong-Soo Choi (Korea)
12:40 - 13:10	Actonel EC: Clinical Effectiveness on Osteoporosis Treatment	Dong-Ju Lim (Korea)
13:10 - 13:40	Complications in Cervical Spine Surgery: Prevention and Management	Gun Woo Lee (Korea)
13:40 - 14:30	Plenary Lecture I (Convention Hall A+B)	Moderator: Yong-Soo Choi (Korea)
13:40 - 14:00	Sagittal Balance vs Sagittal Alignment: The Best Way for Sagittal Contour Assessment	Pierre Roussouly (France)
14:00 - 14:20	How Using Sagittal Alignment to Explain PJK Mechanism	
14:20 - 14:30	Discussion	
14:30 - 14:50	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	

May 27 (Fri) Convention Hall B

Scientific Program

14:50 - 15:10	Invited Lecture IV	Moderator: Kee-Yong Ha (Korea)
14:50 - 15:05	Cervical Spondylotic Myelopathy What Really Matters?	Shankar Acharya (India)
15:05 - 15:10	Discussion	
15:10 - 15:40	MIS I	Moderator: Si-Young Park (Korea), Tae-Keun Ahn (Korea)
15:10 - 15:15	S037 Wharton's Jelly Allogeneic Stem Cells as a Promising Therapy in Post-traumatic Spinal Cord Injury Complete Type: A Case Series	Yudha Mathan Sakti (Indonesia)
15:15 - 15:20	S038 Causes of Early Symptomatic Recurrence after L5-S1 Foraminal Decompression	Dae-Jung Choi (Korea)
15:20 - 15:25	S039 Advantage of Single-position Oblique Lumbar Interbody Fusion with Percutaneous Pedicle Screw Instrumentation	Min-Gu Jang (Korea)
15:25 - 15:30	S040 Vascular Injuries During Minimally Invasive Oblique Lumbar Interbody Fusion at L5-S1	Hae-Dong Jang (Korea)
15:30 - 15:40	Discussion	
15:40 - 16:10	MIS II	Moderator: Jin Hwan Kim (Korea), Jeong-Hyun Yoo (Korea)
15:40 - 15:45	S041 Percutaneous Full-Endoscopic versus Biportal Endoscopic Posterior Cervical Foraminotomy for Unilateral Cervical Foraminal Disc Disease	Hyun-Jin Park (Korea)
15:45 - 15:50	S042 Biportal Endoscopic versus Microscopic Discectomy for Lumbar Herniated Disc: A Randomized Controlled Trial	Sang-Min Park (Korea)
15:50 - 15:55	S043 Biportal Endoscopic Lumbar Foraminal Decompression for Lumbar Foraminal Stenosis and Foraminal Disc Herniation	Asrafi Rizki Gatam (Indonesia)
15:55 - 16:00	S044 Comparison of Reoperation Rates between Biportal Endoscopic and Microscopic Lumbar Discectomy	Si-Young Park (Korea)
16:00 - 16:10	Discussion	
16:10 - 16:40	MIS III	Moderator: Deuk Soo Jun (Korea), Hae-Dong Jang (Korea)
16:10 - 16:15	S045 Unilateral Biportal Endoscopic Thoracic Discectomy	Seung-Hyun Choi (Korea)
16:15 - 16:20	S046 Unilateral Biportal Endoscopic Lumbar Interbody Fusion: A Technical Note and an Outcome Comparison with the Conventional Minimally Invasive Fusion	Asrafi Rizki Gatam (Indonesia)
16:20 - 16:25	S047 Robotic Idiopathic Scoliosis Surgery: Comparative Analysis of Minimal Invasive vs Open Surgery	Phedy Lim (Indonesia)
16:25 - 16:30	S048 Clinical Efficacy of Endoscopic Biportal Spine Surgery in Patients with Cervical Diseases	Seok-Bong Jung (Korea)
16:30 - 16:40	Discussion	
16:40 - 17:10	KSSS General Assembly (Convention Hall A)	
17:30 - 20:00	Gala Dinner (Diamond Hall 3F)	

May 28 (Sat) Convention Hall A

Scientific Program

08:00 - 08:30	Best Paper Candidates Presentation I (Domestic)	Moderator: Young-Hoon Kim (Korea), Jae Jun Yang (Korea)
08:00 - 08:05	S049 Cranio-caudal Asymmetries in Trabecular Architecture: Cadaveric and Clinical Study	Young-Hun Lee (Korea)
08:05 - 08:10	S050 Intelligent Evaluation of Global Spinal Alignment by a Decentralized Convolutional Neural Network	Sung-Hoon Choi (Korea)
08:10 - 08:15	S051 "Sit-to-Stand" Functional Mobility Test Can Predict Proximal Junctional Kyphosis after Surgery for Adult Spinal Deformity	Oh-Sang Kwon (Korea)
08:15 - 08:20	S052 Re-operation Rate of Vertebroplasty/ Kyphoplasty According to Osteoporosis Drugs Used after Vertebroplasty/ Kyphoplasty in Vertebral Fracture from Nationwide Health Insurance Database	Sub-Ri Park (Korea)
08:20 - 08:30	Discussion	
08:30 - 09:00	Best Paper Candidates Presentation II (Domestic)	Moderator: Jong-Beom Park (Korea), Ho-Jin Lee (Korea)
08:30 - 08:35	S053 Surgical Strategy-oriented Classification for the Patients with Severe Dynamic Sagittal Imbalance	Sung-Min Kim (Korea)
08:35 - 08:40	S054 The Role of Wnt Signaling and Homeostasis of Extracellular Matrix in the Intervertebral Disc Cells	Quen He (China)
08:40 - 08:45	S055 Defect-specific 3D Printed CDHA Scaffold Hardening in an Aqueous Solution at Physiological Equivalent Temperature for Bone Restoration	Quanzhe Liu (Korea)
08:45 - 08:50	S056 Double Dome Laminoplasty: A Novel Technique for C2 Decompression	Jong-Min Baik (Korea)
08:50 - 09:00	Discussion	
09:00 - 09:30	Best Paper Candidates Presentation III (Domestic)	Moderator: Hyoung-Yeon Seo (Korea), Jaewan Soh (Korea)
09:00 - 09:05	S057 Time-dependent Changes in Stiffness-related Functional Disability (SRFD) after Long Segmental Fusion in Elderly Patients with Adult Spinal Deformity: Minimum 2-year Follow-up Results	Jin-Sung Park (Korea)
09:05 - 09:10	S058 Comparative Experimental Study on Changes in Serum Bone Turnover Markers and Bone Mineralized Density According to Osteoporosis Drugs after Bony Manipulation in Rabbit Model	Ji-Won Kwon (Korea)
09:10 - 09:15	S059 Significance of Paraspinal Sarcopenia Between Single and Multiple Osteoporotic Vertebral Fractures: Comparative Analysis for Paraspinal Muscle Quality	Hong-Jin Kim (Korea)
09:15 - 09:20	S060 Underweight as a Risk Factor for Vertebral Fractures in the South Korean Population	Ji-Won Park (Korea)
09:20 - 09:30	Discussion	
09:30 - 10:00	Best Paper Candidates Presentation IV (International)	Moderator: Jae-Sung Ahn (Korea), Nam-Su Chung (Korea)
09:30 - 09:35	S061 The Validation Study of Preoperative Planning (Roussouly Algorithm, GAP Score, and Hamamatsu Formula) in Adult Spinal Deformity Surgery	Shin Oe (Japan)
09:35 - 09:40	S062 Combination of Poly-vinyl Alcohol and Chitosan Material as the Promising Spinal Scaffolding Material: Biomaterial and Biological Evaluation	Yudha Mathan Sakti (Indonesia)
09:40 - 09:45	S063 Postoperative Single-shot Epidural Fentanyl and Bupivacaine for Postoperative Analgesia after Lumbar Decompression: A Prospective, Double-blind Randomized Study	Miguel Rafael David Ramos (Philippines)
09:45 - 09:50	S064 Retrospective Matched Comparative Analysis of Non Fusion Anterior Scoliosis Correction vs Posterior Spinal Fusion for Lenke 5 Curves: A Single Surgeon Experience	Umesh P Kanade (India)
09:50 - 10:00	Discussion	
10:00 - 10:20	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	
10:20 - 10:50	Best Paper Candidates Presentation V (International)	Moderator: Sung-Soo Kim (Korea), Se-Jun Park (Korea)
10:20 - 10:25	S065 Simultaneous Overcorrection of Lowest Instrumented Vertebral Tilt and Main Thoracic Curve is Related to Progression of Unfused Residual Lumbar Curve after Posterior Fusion in Adolescent Idiopathic Scoliosis	I-Hsin Chen (Taiwan)
10:25 - 10:30	S066 Effect of Non-fusion Anterior Scoliosis Correction (NFASC) on Thoracic and Lumbar Sagittal Parameters in Adolescent Idiopathic Scoliosis (AIS) Patients? Is it Detrimental?	Umesh P Kanade (India)
10:30 - 10:35	S067 Secondary Dysphagia Associated with Diffuse Idiopathic Skeletal Hyperostosis (DISH): Current Concepts and a Proposed Algorithm	Wongthawat Liawrungrueang (Thailand)
10:35 - 10:40	S068 Retrospective Comparative Cohort Study of Expandable Titanium Cage versus Non-expandable PEEK Cage in Lumbar Transforaminal Interbody Fusion	Chun Man Ma (Hong Kong)
10:40 - 10:50	Discussion	

May 28 (Sat) Convention Hall A

Scientific Program

10:50 - 11:20	Best Paper Candidates Presentation VI (International) Moderator: Kwang-Sup Song (Korea), Jae-Young Hong (Korea)	
10:50 - 10:55	S069 Effect of Individual and Neighbourhood Socio-economic Indicators on Length of Stay in Transforaminal Lumbar Interbody Fusion (TLIF): A Propensity Score Matched Retrospective Analysis	Jessica Thor (Singapore)
10:55 - 11:00	S070 Instrumentation in Children Aged up to 5 Years with Spinal Tuberculosis	Rajesh Kumar Chaudhary (Nepal)
11:00 - 11:05	S071 A Review of Open Spinal Biopsy for Thoracolumbar Spinal Infection and Tumour: A Single Centre Experience	Chee Seiang Wang (Malaysia)
11:05 - 11:10	S072 Lumbar Spinal Full-endoscopic Surgery: Results and Experiences from 101 First Cases at Saint Paul General Hospital in Hanoi, Vietnam	Quang Minh Luong (Vietnam)
11:10 - 11:20	Discussion	
11:20 - 11:40	Invited Lecture V Moderator: Kyu-Yeol Lee (Korea)	
11:20 - 11:35	Complex, Cervical Intradural Dumbell Tumour Excision - Tips and Tricks	Dinesh Shree Kumar (Singapore)
11:35 - 11:40	Discussion	
11:40 - 12:30	Plenary Lecture II (Convention Hall A+B) Moderator: Bong-Soon Chang (President of KSSS)	
11:40 - 12:00	Idiopathic Epidural Lipomatosis Causing Lumbar Spinal Stenosis; Non-negligible Pathological Condition in the Elderly	Morio Matsumoto (Japan)
12:00 - 12:20	Basic and Clinical Researches for Future Treatment of Adolescent Idiopathic Scoliosis	
12:20 - 12:30	Discussion	
12:30 - 13:30	Luncheon Symposium (Meditronic), (Myungmoon Pharm) Moderator: Si-Young Park (Korea)	
12:30 - 13:00	Updated Techniques in OLF	Nam-Su Chung (Korea)
13:00 - 13:30	Advantages of the 4-agent Complex Calcium Supplement	Jong-Min Baik (Korea)
13:30 - 14:30	Symposium: Lumbar	
13:30 - 14:10	Combined Disease-specific Consideration in Treatment for Lumbar Spinal Disorders	Moderator: Young-Woo Kim (Korea), Yong-Chan Kim (Korea)
13:30 - 13:38	Liver Disease	In-Seok Son (Korea)
13:38 - 13:46	Renal Disease	Sa-Hyun Sung (Korea)
13:46 - 13:54	Ischemic Heart Disease	Dong-Hee Kim (Korea)
13:54 - 14:02	Rheumatoid Arthritis	Chang Hwa Hong (Korea)
14:02 - 14:10	Discussion	

May 28 (Sat) Convention Hall A

Scientific Program

14:10 - 14:30	Debate: Smart Systems (AI or Robotics etc) Could Replace Spinal Surgeon?	Moderator: Woo Dong Nam (Korea), Hun-Kyu Shin (Korea)
14:10 - 14:17	Statement "For"	Sang-Bum Kim (Korea)
14:17 - 14:24	Statement "Against"	Young-Bae Kim (Korea)
14:24 - 14:30	Discussion	
14:30 - 14:50	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	
14:50 - 15:20	Lumbar V	Moderator: Jae-Chul Lee (Korea), Jae-Hyuk Yang (Korea)
14:50 - 14:55	S073 Signs of Transforaminal Endoscopic End-point Decompression: Objective and Subjective Evaluation to Prevent Failures	Ajay Krishnan (India)
14:55 - 15:00	S074 Comparison of Surgical Outcomes after Posterior Lumbar Interbody Fusion Using 3D-printed Porous Titanium Cages and Polyetheretherketone (PEEK) Cages	Jae Jun Yang (Korea)
15:00 - 15:05	S075 The Effect of Preoperative Acupuncture and Epidural Steroid Injection on Postoperative Infection after Lumbar Spinal Surgery	Sa-Hyun Sung (Korea)
15:05 - 15:10	S076 Comparison of Three Methods of Instrumentation in the Surgical Management of Unstable Thoracolumbar Fracture	Hyun-Kyu Shin (Korea)
15:10 - 15:20	Discussion	
15:20 - 15:50	Lumbar VI	Moderator: Dong Eun Shin (Korea), Dae-Hyun Park (Korea)
15:20 - 15:25	S077 Analysis of the Objectivity of ODI in Evaluating Prognosis of Patient Who Had Spinal Surgery	Sung Hwan Kim (Korea)
15:25 - 15:30	S078 Comparison of the Effects of Corticosteroid and Hyaluronic Acid-carboxymethylcellulose (HA-CMC) Solution on Selective Nerve Root Block (SNRB) for Lumbar Radiculopathy: A Prospective, Double-blind, Randomized Controlled Clinical Trial	Hee-Chan Kim (Korea)
15:30 - 15:35	S079 Paraspinal Muscles Measurement in Different Epidemiologic Studies Using Various Methods for Association of Lumbar Diseases: A Systematic Review	Ji-Won Jeong (Korea)
15:35 - 15:40	S080 Central Stenosis in Isthmic Lumbar Spondylolisthesis	Hyuk-Joon Sohn (Korea)
15:40 - 15:50	Discussion	
15:50 - 16:10	Best Paper Awards (Convention Hall A)	
16:10 - 16:20	Closing Remarks (Convention Hall A)	
16:20 - 16:30	Farewell and Inauguration Ceremony for the President of KSSS (Convention Hall A)	

May 28 (Sat) Convention Hall B

Scientific Program

08:00 - 08:30	Cervical I	Moderator: Jin Sup Yeom (Korea), Jae-Hyung Eoh (Korea)
08:00 - 08:05	S081 Is Blood Loss Greater in Elderly Patients Under Antiplatelet or Anticoagulant Medication for Cervical Spine Injury Surgery? Japanese Multicenter Study (JASA)	Masashi Uehara (Japan)
08:05 - 08:10	S082 Modified Kappa-line Correlates Better with Neurological Outcomes than Modified K-line after Laminoplasty for Cervical Myelopathy Caused by Ossification of the Posterior Longitudinal Ligament	Hyung-Rae Lee (Korea)
08:10 - 08:15	S083 The Medial Window Technique as a Salvage Method to Insert C2 Pedicle Screw in the Case of a High Riding Vertebral Artery or Narrow Pedicle: A Technical Note and Case Series	Se-Han Park (Korea)
08:15 - 08:20	S084 Does the Use of SONOPET Ultrasonic Aspirator Decrease the Complication Rate of Laminectomy in Cervical Melopathy Patients?	Ayush Sharma (India)
08:20 - 08:30	Discussion	
08:30 - 09:00	Cervical II	Moderator: Bo-Gun Suh (Korea), Kyung Chung Kang (Korea)
08:30 - 08:35	S085 Spontaneous Cervical Spinal Epidural Haematoma - An Insidious Stroke Mimic	Beatrice Tan (Singapore)
08:35 - 08:40	S086 Treatment Strategy for Lateral Atlantoaxial Osteoarthritis	Hee-Jung Son (Korea)
08:40 - 08:45	S087 What Are the Robust Physical Findings and Signs in Diagnosis of Cervicogenic Headache?	Hyun-Cheul Nam (Korea)
08:45 - 08:50	S088 Effect of Individual and Neighbourhood Socio-economic Indicators on Length of Stay in Anterior Cervical Decompression and Fusion (ACDF)	Ramkumar Mohan (Singapore)
08:50 - 09:00	Discussion	
09:00 - 09:30	Cervical III	Moderator: Dong-Ho Lee (Korea), Moon Soo Park (Korea)
09:00 - 09:05	S089 Multilevel, Percutaneous Posterior Cervical Interfacet Distraction and Fusion for Cervical Spondylotic Radiculopathy - Clinical and Radiographic Outcomes	Mikhail Lew Perez Ver (Philippines)
09:05 - 09:10	S090 Multi-rod Instrumentation in Cervical Spine: A Novel Surgical Concept	Tarush Rustagi (India)
09:10 - 09:15	S091 Surgical Outcomes for C2 Tear Drop Fractures: Clinical Relevance to Hangman's Fracture and C2-3 Discoligamentous Injury	Gil-Hwan Lim (Korea)
09:15 - 09:20	S092 The Impact of Over-distraction on Adjacent Segment Pathology and Cage Subsidence in Anterior Cervical Discectomy and Fusion (ACDF)	Yu-Cheng Yeh (Taiwan)
09:20 - 09:30	Discussion	
09:30 - 10:00	Cervical IV	Moderator: Byung Wan Choi (Korea), Suk-Joong Lee (Korea)
09:30 - 09:35	S093 Atrophy of the Posterior Cricoid Muscle as an Indicator of Previous History of Recurrent Laryngeal Nerve Injury before Revision Anterior Cervical Surgery	Sang-Yun Seok (Korea)
09:35 - 09:40	S094 Hinged Roof Reconstruction of Anterior Iliac Crest after Harvesting Bicortical Strut Graft for Anterior Cervical Fusion	Min-Wook Kang (Korea)
09:40 - 09:45	S095 Clinical and Radiographic Outcomes of Mini-open Auto Iliac Bone Graft Technique on Anterior Cervical Discectomy and Fusion	Yun-Tae Kim (Korea)
09:45 - 09:50	S096 Clinical Significance of C2 Slope after Multilevel Spine Fusion Surgery	Namhoo Kim (Korea)
09:50 - 10:00	Discussion	
10:00 - 10:20	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	

May 28 (Sat) Convention Hall B

Scientific Program

10:20 - 10:50		Cervical V	Moderator: Jae-Hyuk Shin (Korea), Jemin Yi (Korea)
10:20 - 10:25	S097	Correlation between Radiological Outcome and Functional Outcome Following Cervical Laminoplasty for Cervical Spondylotic Myelopathy and Ossification of Posterior Longitudinal Ligament	Sachin Anil Borkar (India)
10:25 - 10:30	S098	Clinical Outcome between Preservation and Resection of Posterior Longitudinal Ligament in Anterior Cervical Discectomy and Fusion	Tuanrit Sornsard (Thailand)
10:30 - 10:35	S099	Surgical Outcome of Locked Facet in Distractive-flexion Injury of the Subaxial Cervical Spine: Case Series	Kang-San Lee (Korea)
10:35 - 10:40	S100	CT Morphologic Study of Sub-axial Cervical Spine and Feasibility for Pedicle Screw Insertion among Thai Population	Surawut Ruchirawan (Thailand)
10:40 - 10:50		Discussion	
10:50 - 11:20		Tumor & Infection	Moderator: Dong Ki Ahn (Korea), Jun-Seok Lee (Korea)
10:50 - 10:55	S101	Analysis of Quality of Life after Stabilisation of Metastatic Vertebral Fracture	Bikram Keshari Kar (India)
10:55 - 11:00	S102	Titanium Mesh Reconstruction for Large Chest Wall Defects after Radical Excision of Large Residual Malignant / Locally Aggressive Vertebral Tumors - A Short Case Series and Literature Review	Charanjit Singh Dhillon (India)
11:00 - 11:05	S103	Case of Recurrent Fungating Sacrococcygeal Chordoma with Perineural Invasion of the Sciatic Nerve - Highlighting Role of Multidisciplinary Teleconference in Treating Spinal Tumors during COVID-19 Era	Mamer Rosario (Philippines)
11:05 - 11:10	S104	Surgical Management of Pott's Spine	Rajesh Pratap Shah (Nepal)
11:10 - 11:20		Discussion	
11:20 - 11:40		Invited Lecture VI	Moderator: Chong-Suh Lee (Korea)
11:20 - 11:35		Single Level Total Disc Replacement - Index Level Revision and Adjacent Level Surgery Incidence, 2 Characteristics, and Outcomes	Matthew Scott-Young (Australia)
11:35 - 11:40		Discussion	
11:40 - 12:30		Plenary Lecture II (Convention Hall A+B)	Moderator: Bong-Soon Chang (President of KSSS)
11:40 - 12:00		Idiopathic Epidural Lipomatosis Causing Lumbar Spinal Stenosis; Non-negligible Pathological Condition in the Elderly	Morio Matsumoto (Japan)
12:00 - 12:20		Basic and Clinical Researches for Future Treatment of Adolescent Idiopathic Scoliosis	
12:20 - 12:30		Discussion	
12:30 - 13:30		Luncheon Symposium (Viatris), (CGBio)	Moderator: Kyung-Soo Suk (Korea)
12:30 - 13:00		Importance of Differential Diagnosis of NeP Component Among LBP Patients and Its Right Treatment	Ho-Jin Lee (Korea)
13:00 - 13:30		Efficacy and Safety of NOVOSIS Putty in TLIF: Prospective, Multicenter Study	Jae Hwan Cho (Korea)

May 28 (Sat) Convention Hall B

Scientific Program

13:30 - 14:30	Symposium: Cervical (Current Concepts in Cervical Spinal Surgery: A Historical Perspective)	Moderator: Young Sang Lee (Korea) Kyung-Soo Suk (Korea)
13:30 - 13:42	Occipitocervical / Upper Cervical Spine	Kyung-Chung Kang (Korea)
13:42 - 13:54	Anterior Decompression and/or Fusion	Dong-Ho Lee (Korea)
13:54 - 14:06	Posterior Decompression and/or Fusion	Byung-Wan Choi (Korea)
14:06 - 14:18	Artificial Disc Replacement	Jong-Beom Park (Korea)
14:18 - 14:30	Discussion	
14:30 - 14:50	Coffee Break (Convention Hall C (4F) & Exhibition Hall (2F))	
14:50 - 15:20	Trauma	Moderator: Kee-Won Rhyu (Korea), Dong-Ju Lim (Korea)
14:50 - 14:55	S105 Profile, Incidence and Outcome of Patients Diagnosed with Traumatic Cervical Spine Injury Admitted at Southern Philippines Medical Center - Department of Orthopedics: A Retrospective Review	Ali Farhan Pendaliday (Philippines)
14:55 - 15:00	S106 Characteristics and Prognosis of Traumatic Cervical Spine Injury in Older Adults Based on Injury Mechanism: A Multicenter Study of 1,512 Cases	Noriaki Yokogawa (Japan)
15:00 - 15:05	S107 Reducibility of Facet Joint Dislocation by Preoperative Traction in the Treatment of Distractive-flexion Injury of the Lower Cervical Spine	Won-Bin Song (Korea)
15:05 - 15:10	S108 Underweight (BMI < 18.5) on the Risk of Vertebral Fracture: A Nationwide Population-based Study	Ki-Hoon Park (Korea)
15:10 - 15:20	Discussion	
15:20 - 15:50	Miscellaneous	Moderator: Yong Gi Choi (Korea), Sung-Woo Choi (Korea)
15:20 - 15:25	S109 The Relationship between the Frailty, Skeletal Muscle Mass and Bone Mineral Density in Patients with Osteoporotic Vertebral Fractures	Tae-Gyu Park (Korea)
15:25 - 15:30	S110 Is More Beneficial Longer Use of Teriparatide for Surgical Outcomes after Spinal Fusion?	Hyo-Jin Lee (Korea)
15:30 - 15:35	S111 Contralateral Retrodiscal Transforaminal Approach for Percutaneous Epidural Adhesiolysis: A Technical Description and Retrospective Comparative Study	Ki-Han You (Korea)
15:35 - 15:40	S112 Applications of 3D Exoscopic Visualization in Spine Surgery: The Philippine Experience	Michael Louis Ang Gimenez (Philippines)
15:40 - 15:50	Discussion	
15:50 - 16:10	Best Paper Awards (Convention Hall A)	
16:10 - 16:20	Closing Remarks (Convention Hall A)	
16:20 - 16:30	Farewell and Inauguration Ceremony for the President of KSSS (Convention Hall A)	

E-Posters



E-Posters of the International Congress of the Korean Society of Spine Surgery!
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Abstract No.	Abstract Title	Name
2022S-014	E01 Radiographic Evaluation of Single-level Infective Lumbar Spondylodiscitis Following Conservative Compared to Surgical Treatment: Retrospective Cohort Study	Thippatai Chaichompoo (THA)
2022S-031	E02 Management of Spinal Brucellosis in a Tertiary Care Hospital	Shyamasunder Bhat Neerkaje (IND)
2022S-040	E03 Functional Outcome and Fusion Rates of Translaminar Screw Fixation of The Lumbar and Lumbosacral Spine: A Case Series	Andhika Yudistira (IDN)
2022S-041	E04 Herpes Zoster Mediated Radiculitis After Thoracic Spine Surgery	Hyo Sae Ahn (KOR)
2022S-047	E07 Safety and Efficacy of Non-fusion Anterior Scoliosis Correction (NFASC) for Treatment of Adolescent Idiopathic Scoliosis (AIS)- A Single Centre Experience	Umesh Purbhaji Kanade (IND)
2022S-051	E08 Determining a Cutoff Value for Hand Grip Strength to Predict Favorable Outcomes of Adult Spinal Deformity Surgery	Ohsang Kwon (KOR)
2022S-052	E09 A Complement Type to SRS-Schwab Adult Spinal Deformity Classification: The Failure of Pelvic Compensation	Ohsang Kwon (KOR)
2022S-053	E10 Comparison Between Tricortical Iliac Bone Graft and PEEK Fill Cancellous Iliac Bone Graft in 2 and 3 Levels Anterior Cervical Discectomy and Fusion(ACDF), after 2 Years Follow p	Ekkapoj Korwutthikulrangsri (THA)
2022S-057	E11 The Importance Among the Level of Restoring Lumbar Lordosis, Reciprocal Change of Pelvic Tilt, and the Proximal Junctional Kyphosis	Dae-Woong Ham (KOR)
2022S-058	E12 The Importance of Thoracolumbar Junctional Angle in Development of Acute Proximal Junctional Kyphosis in Adult Spinal Deformity Surgery	Dae-Woong Ham (KOR)
2022S-061	E13 Minimally Invasive Surgery for Degenerative Lumbar Pathology an Institutional Experience.	Ayush Sharma (IND)
2022S-072	E14 Windowing Technique for Decompression and Posterior Instrumentation of Thoraco-lumbar Spinal Fracture in Neurological Deficit Patients- A Periphery Hospital Experience of Nepal	Yogendra Agrahari (NPL)
2022S-073	E15 Surgical Outcome of Radical Decompression of L5 Nerve Root for Foraminal Stenosis at L5-S.	Ajay Kumar Yadav (NPL)
2022S-075	E16 Safety and Effectiveness of Minimally Invasive Scoliosis Surgery for Adolescent Idiopathic Scoliosis: a Retrospective Case Series of 84 Patients	Yunjin Nam (KOR)
2022S-077	E17 Pain Relief after Selective Nerve Root Block as a Predictor of Postoperative Functional Outcome in Patients with Degenerative Lumbar Spinal Stenosis Patients Undergoing Decompressive Surgery: SNRB and Surgical Outcome in DLSS	Hee-Chan Kim (KOR)
2022S-085	E18 Management of Tuberculous Spondylitis With Minimal Invasive Surgery Debridement: A Case Series	Abdul Kadir Hadar (IDN)
2022S-086	E19 Mechanical Stability and Clinical Outcome Following Posterior Cervical Fusion Surgery Using C3-6 Lateral Mass Screw Fixation: En Block Screw Fixation versus Regional Screw Fixation	Sang Yun Seok (KOR)
2022S-088	E20 Directly Reprogrammed Human Neural Progenitor Cells Promote Functional Recovery after Cervical Spinal Cord Injury	Kazuya Yokota (JPN)
2022S-089	E21 Progressive Paraplegia Due to Pneumorrhachis after Epidural Block	Kyu-Bok Kang (KOR)
2022S-090	E22 Treatment Option for Unilateral Cervical Facet Fracture with Radiculopathy	Jihoon Shin (KOR)
2022S-093	E23 Bone Bridge Effect (BBE) in the Treatment of Acute Osteoporotic Compression Fracture	Ja-Yeong Yoon (KOR)
2022S-106	E24 Preoperative Dehydration and Hyponatremia Were Associated with Postoperative Complications in Thoracolumbar Surgery for Degenerative Diseases.	Won-Jun Ha (KOR)
2022S-107	E25 Characteristics of Patients Undergoing Revision Surgery for Proximal Junctional Failure after Adult Spinal Deformity Surgery: Re-validation of Hart-ISSG Proximal Junctional Kyphosis Severity Scale (PJKSS)	Jun-Sung Park (KOR)
2022S-115	E26 Predictive Outcome in Patients with Cervical Myelopathy Undergoing Open-Door Laminoplasty in Developing Country Performed by Single Surgeon at Single Centre	Adam Moeljono (IDN)

E-Posters

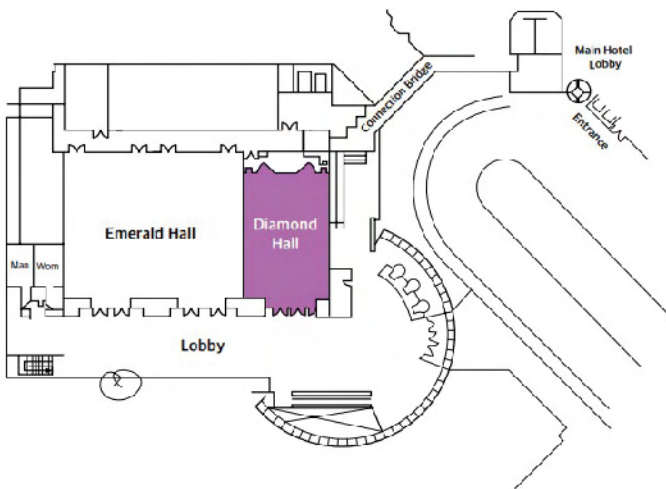
Abstract No.	Abstract Title	Name
2022S-123	E28 Preoperative Transverse Area of Spinal Cord Compression using Quantitative Magnetic Resonance Imaging in Surgically Treated Cervical Spondylotic Myelopathy: A Descriptive Study	Jon Christian Sanga Manuntag (PHL)
2022S-129	E29 Correlation between MRI Canal Dimensions and Clinical Severity in Lumbar Canal Stenosis- A Cross-Sectional Study	Janardhana P Aithala (IND)
2022S-132	E30 Intraoperative Finding and Management of Complete Spinal Cord Transection after Thoracolumbar Traumatic Fracture- dislocation	Dong-Ju Lim (KOR)
2022S-133	E31 Pelvic Obliquity Flexibility Assessment to Estimate Surgical Outcomes in Patients Who Have Flaccid Neuromuscular Scoliosis	Hwan-Seong Park (KOR)
2022S-135	E32 Comparison of C5 Palsy Rate in Cervical Spine Surgery (Posterior Only and Posterior-Anterior-Posterior Surgery)	Mahmoud Hussein Abdou (EGY)
2022S-138	E33 Experimental and Numerical Studies for Optimal Design Pedicle Screw	Chan-Hee Song (KOR)
2022S-140	E34 Relationship between Degree of Separation of Endplate Cartilage and Severity of Intervertebral Disc Herniation	Yunjin Nam (KOR)
2022S-142	E35 Full Endoscopic Posterior Cervical Foraminotomy in Management of Foraminal Disc Herniation and Foraminal Stenosis	Asrafi Rizki Gatam (IDN)
2022S-143	E36 The Clinical Outcomes of Surgical Treatment of Infectious Spondylitis	Seung Lim Beak (KOR)
2022S-150	E37 Effects of Location and Volume of Intraosseous Cement on Adjacent Level of Osteoporotic Spine Undergoing Kyphoplasty: Finite Element Analysis	Myung-Geun Song (KOR)
2022S-151	E38 The Role of Mitofusin 1 in the Intervertebral Disc Degeneration	Sang-Jun Park (KOR)
2022S-160	E39 Global fusion of Thoracolumbar burst fracture by posterior approach	Bishnu Babu Thapa (NPL)
2022S-173	E40 Proximity of Endplate on UIV Using Cortical Bone Trajectory Screws Can be a Risk Factor for Early Onset Postoperative Radiologic Adjacent Segment Disease	Ji-Won Kwon (KOR)
2022S-174	E41 Efficacy of Facet Block on Lower Back Pain in Patients with Adjacent Segment Disease	Dae Jin Nam (KOR)
2022S-182	E42 Remote Cerebellar Hemorrhage Following a Pedicle Subtraction Osteotomy in Ankylosing Spondylitis - A Case Report	Wu-Seok Shin (KOR)
2022S-183	E43 Evaluation of Radiologic Parameters Regarding Successful Indirect Decompression Through OLIF	Jiwon Park (KOR)
2022S-186	E44 Occipitocervical Fixation: A Case Report of Our Techniques and Results	Yudha Mathan Sakti (KOR)
2022S-188	E45 Which Radiographic Parameter Can Aid in Deciding Optimal Allograft Height Used for Anterior Cervical Discectomy and Fusion?	Sehan Park (KOR)
2022S-191	E46 Foraminal Restenosis after Posterior Cervical Foraminotomy for the Treatment of Cervical Radiculopathy	Sehan Park (KOR)
2022S-198	E47 Prevalence, Risk Factors, and Postoperative Infection Rates of Blood Transfusion in Lumbar Spinal Fusion Surgery: A Korean Nationwide Population-Based Study	Si Young Park (KOR)
2022S-201	E48 Comparison of the Cobb Angle Measurement between Manual and Digital Methods Among Five Military Hospitals	Roongrath Chitragran (THA)
2022S-205	E49 Does Local Application of Vancomycin Powder Reduce Postoperative Infection in Cervical Laminoplasty? A Retrospective Review	Ho Ming Li (HKG)
2022S-215	E50 Role of Intra-operative Ultrasound in Spine Surgery for Extradural Pathologies	Tarush Rustagi (IND)
2022S-217	E51 Rhabdomyolysis in Lumbar Spine Surgery in Chinese: A Case Report	Edwin Kwok Hang Lam (HKG)
2022S-224	E52 Cross-cultural Adaptation and Validation of the Traditional Chinese Version of the Core Outcome Measures Index in Patients with Low Back Pain	Meng-Huang Wu (TWN)
2022S-226	E53 Advantages of L5 Lamina Hook in Surgical Correction for Adult Spinal Deformity and Its indications	Sung-Min Kim (KOR)

Venue Information

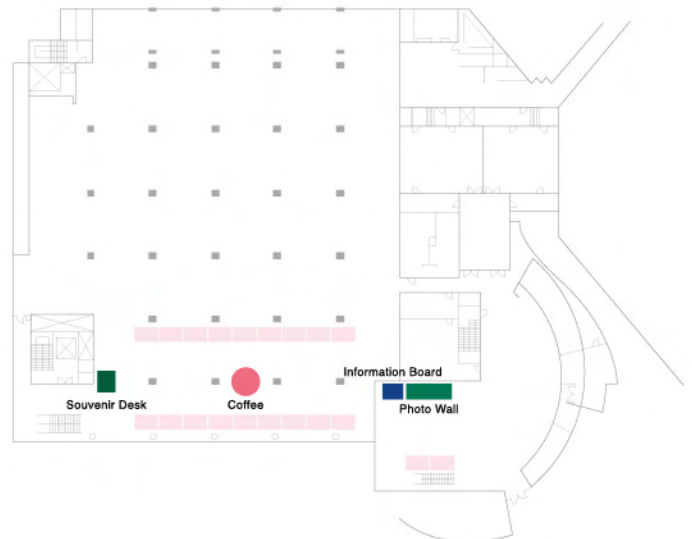
Convention Center 4F



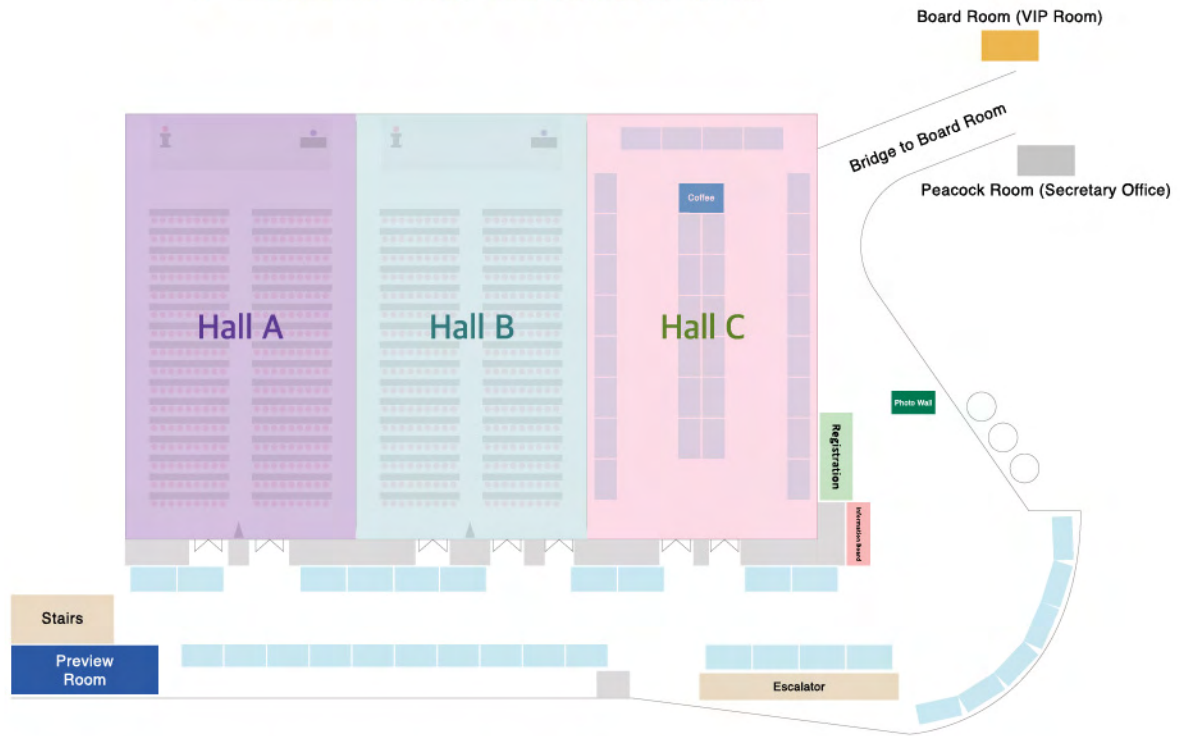
Convention Center 3F



Convention Center 2F



Venue Information



Convention Hall / Convention Center 4F

Convention Hall A

Opening Remarks (Convention Hall A+B)
 Plenary Lecture I, II (Convention Hall A+B)
 Invited Lecture I, III, V
 Asian Spine Society Presidential Session (Convention Hall A + B)
 Symposium Deformity, Lumbar
 Luncheon Symposium
 Basic Research I, II
 Lumbar I-VI
 Best Paper Candidates Presentation I-V
 KSSS General Assembly
 Best Paper Awards
 Closing Remarks
 Farewell and Inauguration Ceremony for the President of KSSS

Convention Hall B

Opening Remarks (Convention Hall A+B)
 Plenary Lecture I, II (Convention Hall A+B)
 Invited Lecture II, IV, VI
 Asian Spine Society Presidential Session (Convention Hall A+B)
 Symposium MIS, Cervical
 Luncheon Symposium
 Cervical I-V
 Deformity I-III
 Miscellaneous
 MIS I-III
 Trauma
 Tumor & Infection

Exhibition

Convention Hall C, Lobby (4F) & Exhibition Hall (2F)
 May 27 (Fri), 8:00 - 17:00
 May 28 (Sat), 8:00 - 16:00

Coffee Break

Convention Hall C (4F) & Exhibition Hall (2F)
 May 27 (Fri), 10:10 - 10:30 / 14:30 - 14:50
 May 28 (Sat), 10:00 - 10:20 / 14:30 - 14:50

Preview Room

Convention Hall Lobby
 May 27 (Fri), 7:00 - 18:00
 May 28 (Sat), 7:00 - 16:00

Social Program

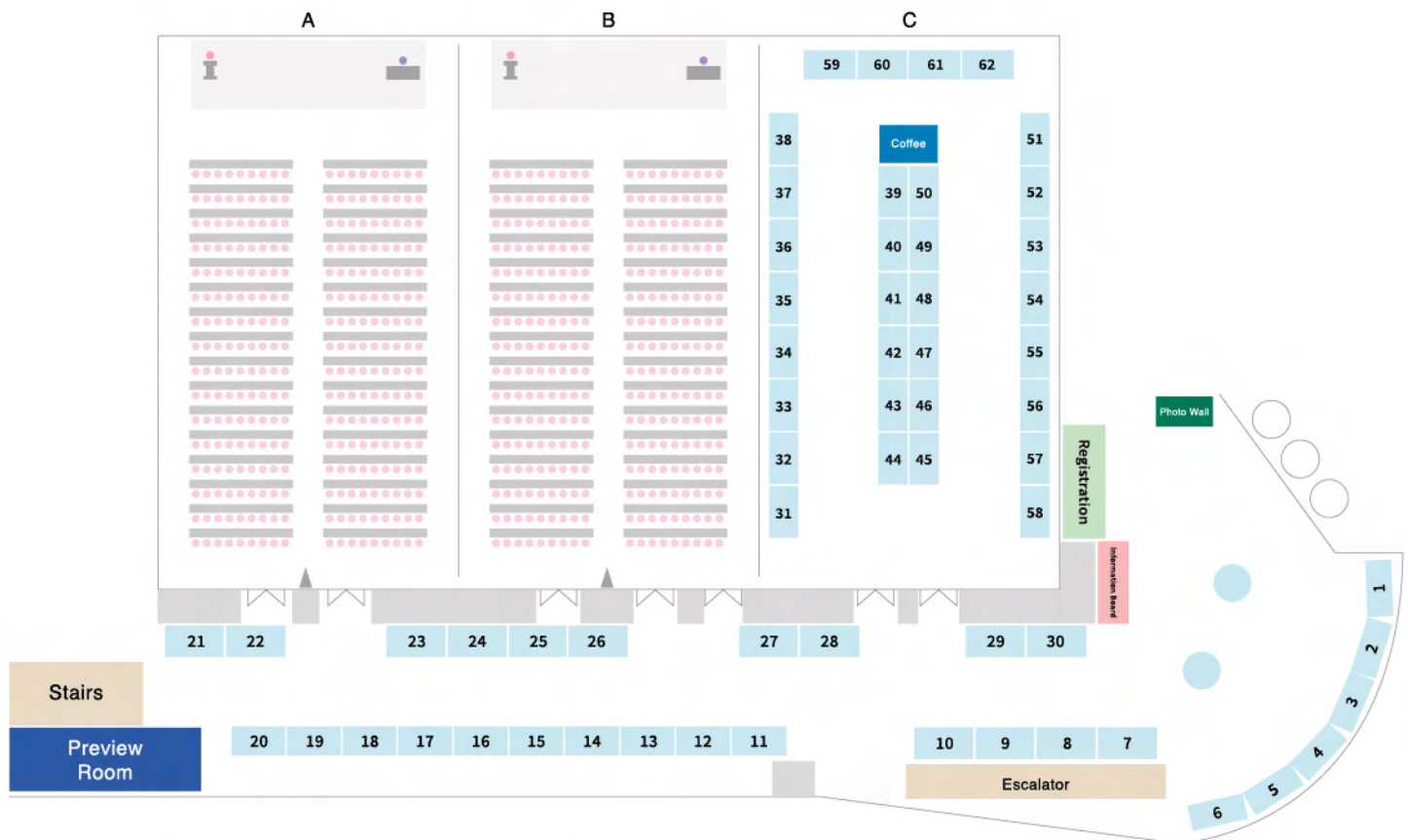
Diamond Hall 3F
 Welcome Reception
 May 26 (Thu), 18:00 - 20:00
 Gala Dinner
 May 27 (Fri), 17:30 - 20:00

VIP Room

Board Room (Main Hotel 2F)
 May 27 (Fri), 7:00 - 18:00
 May 28 (Sat), 7:00 - 16:00

Booth Layout

Convention Center 4F+ Lobby

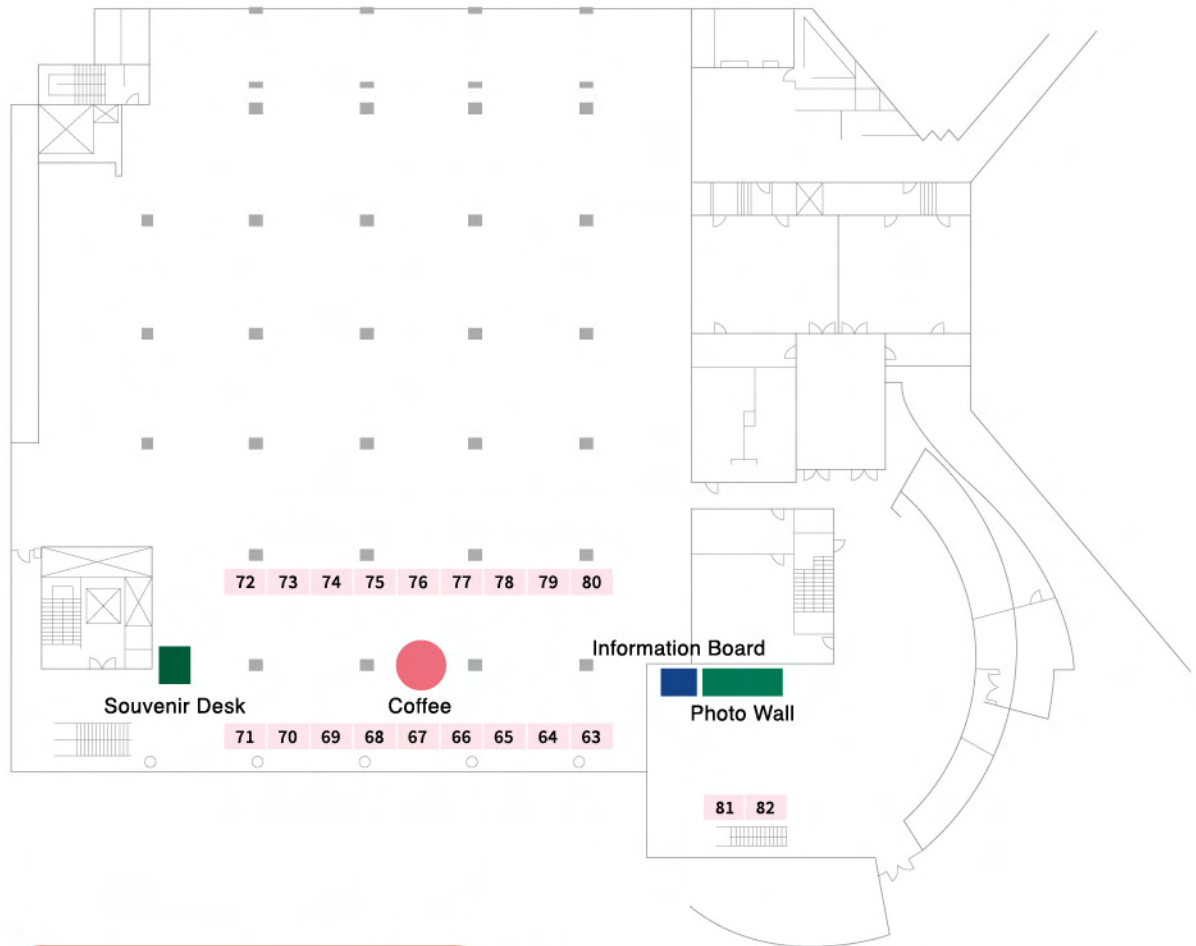


Convention Center 4F

1 - 4	GS Medical	39 - 40	inno.N
5 - 6	Medtronic	41 - 44	Myungmoon Pharm.
29 - 30	Medtronic	45 - 48	Johnson & Johnson Medical Korea
7 - 10	Medysey	49 - 50	Janssen Korea
11 - 16	Daewon Pharm	51 - 52	Hanmi Pharm.
17 - 22	Amgen Korea	53 - 54	Handok
23 - 28	Dong-A ST	55 - 58	VIATRIS Korea
31 - 34	CG Bio	59 - 60	DK Medical Solutions
35 - 36	GE Healthcare Korea	61 - 62	Dalim Medical
37 - 38	SK Chemicals		

Booth Layout

Exhibition Hall / Convention Center 2F



Convention Center 2F

63	Yuyu Pharma	73	Baxter
64	Zeiss Korea	74	Hans Biomed
65	Daewoong Pharm.	75	Huvexel
66	Hanmi Healthcare	76	LG Chem
67	WSI	77	Pharmanovia Korea
68	Spino Tech	78	Samjin Pharm.
69	M Retail	79	Corentec
70	UCT Medical	80	APRO Korea
71	JW Bio Science	81	Raphael Biomed
72	Edison Inno	82	Endac

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Conference Information

➔ Registration

Location: Lobby (Swiss Grand Hotel Convention Hall 4F)

Operation Hours: May 26 (Thu), 16:30 - 18:00

May 27 (Fri), 07:00 - 18:00

May 28 (Sat), 07:00 - 12:00

➔ Souvenir Desk: Exhibition Hall 2F

➔ Name Badge Policy

For security purposes, it is mandatory that all participants and exhibitors wear their name badges during the conference. If any changes for details needed on the badge, please visit the registration desk.

➔ Lunch

Lunch box will be provided to all participants at the Meeting Room where you are located.

Place: Convention Hall A, Hall B

Operation Hour: May 27 (Fri), 12:40 - 13:40

May 28 (Sat), 12:30 - 13:30

Lunch box will be provided to all booth staffs on the second floor of the Convention Center.

Operation Hour: 11:30 - 12:30

➔ Coffee Break

Coffee will be provided to all participants during break times at Convention Hall C (4F) & Exhibition Hall (2F)

Operational Hour: May 27 (Fri), 10:10 - 10:30/14:30 - 14:50

May 28 (Sat), 10:00 - 10:20/14:30 - 14:50

➔ Preview Room

Location: On the opposite side of Convention Hall A

Operation Hours: All speakers are requested to visit the preview room and submit presentation materials at least 1 hours prior to your presentation.

➔ E-Poster Download

Abstracts selected for E-Poster will have no specific presentation date and time.

E-poster abstracts can be viewed on the KSSS 2022 official website. (www.ksss2022.org)

Social Program

➡ Welcome Reception

Date: May 26 (Thu), 18:00 - 20:00

Place: Convention Center, Diamond Hall 3F

➡ Gala Dinner

Date: May 27 (Fri), 17:30 - 20:00

Place: Convention Center, Diamond Hall 3F

The Welcome Reception and Gala Dinner is open to all conference participants. It provides an important opportunity to network with academics from different regions across the world in a nice and professional setting.

➡ Discover Seoul

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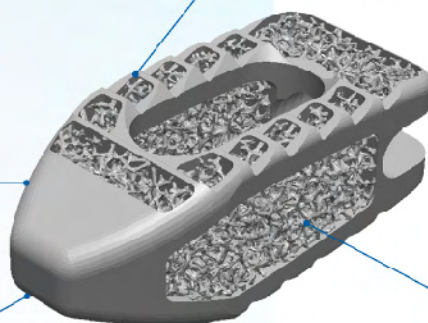


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[제출 요약정보]

[효능효과] 장시간 지속적 인마약성 진통제 치료를 필요로 하는 중증 만성 통증의 완화 [용법용량] 1일 2회 약 12시간 간격으로 투여. 현재 마약성 진통제를 복용하지 않고 있는 환자의 경우 1회 50mg로 치료를 시작하며, 이전 마약성 진통제에서 전환 시에는 이전 약물의 특성, 효과 및 평균 1일 용량을 고려하여 투여. 용량적정이 필요 시 1일 2회 투여를 유지하면서 3일 간격으로 50mg씩 증량하며, 1일 용량 500mg를 초과하는 것은 권장되지 않음. [경고] 1) 남용 가능성: 다른 μ -아편양 수용체 작용제 활성이 있는 약물과 마찬가지로, 이 약은 남용 가능성이 있다. 2) 고용량 또는 μ -아편양 수용체 작용제에 민감한 환자들에서 약은 용량 관련 호흡억제를 유발할 수 있다. 3) 임신 중 이 약을 장기 사용 환경우 신생아에게 급단 증후군이 발생할 수 있다 [투여금지] 1) 이 약 또는

이 약의 구성성분 과민증이 있는 환자 2) μ -아편양 수용체 효현제 활성이 있는 약물이 금기인 경우: 중증의 호흡 억제 환자, 급성 또는 중증 기관지천식 환자, 고탄산혈증(hypercapnia) 환자 3) 마비성 장폐색증이 있거나 의심되는 환자 4) 알코올, 수면제, 중추작용성 진통제 또는 항정신성의약품에 대한 급성 중독 환자 5) MAO 억제제를 투여받고 있거나 최근 14일 이내 이를 복용했던 환자 [신중투여] 1) 신장에 환자 2) 간장에 환자 3) 지혈약 환자 4) 급성 해장염을 포함한 담도질환 환자 5) 호흡저하 환자 6) 두부손상, 뇌종양 환자 등 두개내압 상승 가능성이 있는 환자 7) 발작장애가 있는 환자 8) 임부 및 수유부 [저장방법] 기밀용기, 실온(1-30°C) 보관 [수입판매원] (주)한국안셀

* 기타 상세한 내용은 제품 허가사항을 참고하여 주시기 바랍니다.

Reference: 1. Baron R, Martin-Mola E, Mijller M, et al. Pain Pract 2016 Jun; 16(5):600-19.

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① 연골성분 손실 억제¹⁻⁴⁾
(in vitro 및 in vivo)

② 안전성 프로파일의 확인⁵⁾

③ 장기투여¹⁾ 자료 확보⁶⁾

④ 풍부한 연구자료ⁱⁱ⁾

⑤ 철저한 생산공정 관리ⁱⁱⁱ⁾

제품요약정보

전문 의약품

【제품명】 조인스정200mg 【원료약품 및 그 분량】 이 약 1정 중 조인스정 유효성분: 위령선-관루근-하초초30%에탄올건조엑스(40→1)(별규) ...200mg 【효능·효과】 골관절증(퇴행관절질환), 류마티스관절염의 증상 완화 【용법·용량】 성인 : 1회 1정을 1일 3회 경구투여한다. 증상에 따라 적절히 증감한다. 【사용상의 주의사항】 1. 다음 환자에는 신중히 투여할 것. 1) 감염상태 또는 감염의 원인이 있는 환자(감염에 대한 자체 저항력이 감소될 가능성이 있음을 고려해야 하며, 이런 경우에는 감염의 진행을 억제하는 처치를 취해야 한다.) 2) 임부 또는 임신하고 있을 가능성이 있는 여성 및 수유부 (후락) 【제조사】 에스케이케미칼(주) 충청북도 청주시 흥덕구 산단로 149 【판매자】 에스케이케미칼(주) 경기도 성남시 분당구 판교로 310 2011. 3. 21. 개정

※처방하시기 전 서품설명서 전문을 참고하십시오. 최신 허가사항에 대한 정보는 '식품의약품 안전처 의약품안전나라' (<https://nedrug.mfds.go.kr/index>)에서 확인할 수 있습니다.

References 1. Choi JH et al., Effects of SK 306X, a new herbal agent, on proteoglycan degradation in cartilage explant culture and collagenase-induced rabbit osteoarthritis model., Osteoarthritis Cartilage. 2002 Jun;10(6):471-8. 2. Hertog A et al., The multicomponent phytopharmaceutical SK306X inhibits in vitro cartilage degradation and the production of inflammatory mediators., Phytomedicine. 2008 May;15(5):313-20. 3. Lee SW et al., Clematis mandshurica protected to apoptosis of rat chondrocytes., J Ethnopharmacol. 2005 Oct 3;101(1-3):294-8. 4. Choi CH et al., SK306X inhibition of glycosaminoglycan degradation in human cartilage involves down regulation of cytokine-induced catabolic genes., Korean J Intern Med. 2014 Sep;29(5):647-55. 5. Jung YE et al., A four-week, randomized, double-blind trial of the efficacy and safety of SK305X: a herbal anti-arthritis agent versus diclofenac in osteoarthritis of the knee., Am J Chin Med. 2004;32(2):291-301. 6. JonsFinalReport_20051007(최종), Data on file, SK케미칼, Updated 2005.10.07 7. 조인스정 허가정보, 의약품안전나라 [Cited 2020.02.26] Available from: <https://nedrug.mfds.go.kr/>

i. 4년간의 시판후 조사결과 상 6개월 이상 장기투여(164명, 전체의 3.09%) 대상자 포함하였음.

ii. Pubmed SK 306X 검색결과 조인스로 진행된 연구 총 13건 [Cited 2020.02.17] Available from : <https://www.ncbi.nlm.nih.gov/pubmed/?term=SK+306X>.

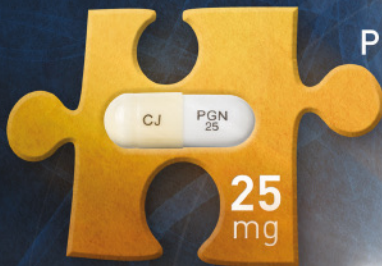
iii. Certificate of Good Manufacturing Practice (2015.08), Daejeon Regional Commissioner Food and Drug Administration.

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Pregabalin 25 / 50 / 75 / 150mg



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효능 · 효과

1. 성인에서 말초와 중추 신경병증성 통증의 치료
2. 간질 : 성인에서 이차적 전신증상을 동반하거나 동반하지 않은 부분 발작의 보조제
3. 섬유근육통의 치료

용법 · 용량

이 약은 프레가발린으로서 1일 총 투여용량을 1일 2회로 나누어 음식물과 상관 없이 경구 투여한다. 이 약은 주로 신장으로 배설되므로, 신기능이 저하된 환자에 대해서는 용량이 조절되어야 한다. 1. 신경병증성 통증 1) 말초 신경병증성 통증(성인): 이 약은 시작용량으로 1일 150mg을 투여할 수 있다. 개개 환자에서의 반응과 내약성에 근거하여 3일 내지 7일 후에 1일 300mg까지 증량할 수 있다. 필요하다면, 이후 7일 간격으로 1일 최대 600 mg까지 증량할 수 있다. 2) 중추 신경병증성 통증(성인): 이 약은 시작용량으로 1일 150mg을 투여할 수 있다. 개개 환자에서의 반응과 내약성에 근거하여 1주일 후에 1일 300mg까지 증량할 수 있다. 추가로 1주일 후에 목표 1일 용량인 600mg까지 증량할 수 있다. 목표 1

일 용량에서 내약성을 나타내지 않을 경우 용량 감소가 고려될 수 있다. 2. 간질 (성인): 이 약은 시작용량으로 1일 150mg을 투여할 수 있다. 개개 환자에서의 반응과 내약성에 근거하여 일주일 후에 1일 300mg까지 증량할 수 있다. 필요하다면, 이후 7일 간격으로 1일 최대 600mg까지 증량할 수 있다. 3. 섬유근육통: 이 약의 권장 용량은 1일 300mg~450mg 이다. 이 약은 시작 용량으로 75mg 씩 1일 2회(1일 150mg)를 투여하며, 유효성과 내약성에 근거하여 1주일 이내에 150mg씩 1일 2회(1일 300mg) 까지 증량할 수 있다. 1일 300mg의 용량에서 충분한 유효성을 경험하지 못한 환자의 경우에는 1주일 이내에 225mg씩 1일 2회(1일 450mg) 까지 증량할 수 있다. 1일 600mg의 용량에서도 임상 연구가 실시 되었으나, 이 용량에서의 부가적인 유효성이나 충분한 내약성에 대한 증거는 없다. 용량 의존적인 이상반응을 고려하면, 1일 450mg을 초과하는 용량 투여는 권장되지 않는다.

사용상의 주의사항

1. 경고 1) 자살충동과 자살행동 (1) 항간질약을 복용한 환자에서 자살충동 또는 자살행동을 보이는 위험성이 증가되므로 항간질약을 치료받은 환자는 자살충동 또는 자살행동, 우울증의 발현 또는 악화 및 기분과 행동의 비정상적 변화에 대하여 모니터링되어야 한다.(2) 항간질약을 처방받는 간질과 다른 많은 질병은

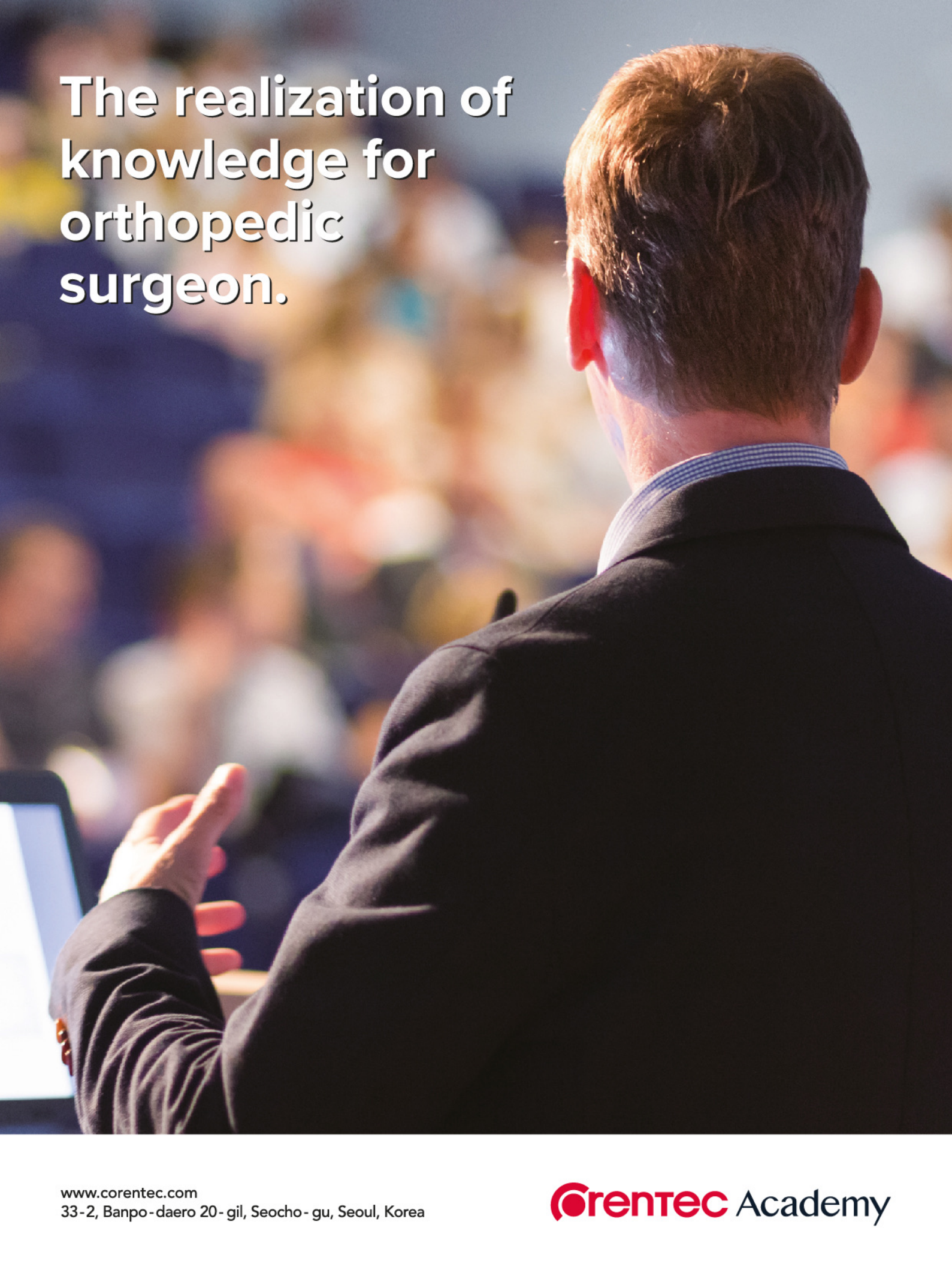
그 자체가 이환 및 사망, 치료기간 동안의 자살충동과 자살행동의 위험성증가와 관련된다. 따라서 처방자는 항간질약 처방시 환자의 치료기간 동안 자살충동 또는 자살행동과 치료될 질병간의 연관성 유무 및 이 약의유효성을 함께 고려한다. 2. 다음 환자에는 투여하지 말 것 1) 프레가발린 또는 이 약의 성분에 과민한 환자 2) 이 약은 유당을 함유하고 있으므로, 갈락토오스 불내성 (galactose intolerance), Lapp 유당분해효소 결핍증 (Lapp lactase deficiency) 또는 포도당-갈락토오스 흡수 장애 (glucose-galactose malabsorption) 등의 유전적인 문제가 있는 환자에게는 투여 하면 안 된다.

* 기타 자세한 사항은 제품설명서를 참고하십시오.

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