

Symposium 1

9:00 - 10:40, November 24 (Wed.), 2021 Hall 1

International Intradiscal Therapy Society(IITS) Symposium

Moderators: Nobuyuki Fujita (Fujita Health University, Japan)
Toshiya Tachibana (Hyogo College of Medicine, Japan)

- S1-1 1-year clinical outcome of condoliase therapy for patients with lumbar disc herniation**
Tomohiro Banno
(Hamamatsu University School of Medicine, Japan)
- S1-2 Intradiscal injection of platelet-rich plasma (PRP) for the treatment of discogenic low back pain**
Koji Akeda
(Department of Orthopaedic Surgery, Mie University Graduate School of Medicine, Japan)
- S1-3 Molecular mechanisms of intervertebral disc degeneration**
Nobuyuki Fujita
(Fujita Health University, Japan)
- S1-4 Intradiscal Therapy Using Bipolar Radiofrequency coagulation for Athletes**
Hiroaki Manabe
(Department of Orthopedics, Tokushima Naruto Hospital, Japan)
- S1-5 Basic information for painful Modic change**
Tetsuhiro Ishikawa
(Orthopedic Surgery, Sanmu Medical Center, Japan)
- S1-6 A new intradiscal therapy for painful Modic change: Full-endoscopic disc cleaning (FEDC) surgery**
Kazuya Kishima
(Department of orthopaedic surgery, Hyogo college of medicine, Japan)

Invited Lecture 1

10:50 - 11:50, November 24 (Wed.), 2021 Hall 1

Moderator: Yukoh Ohara (Juntendo University, Japan)

- IL1 History of my full-endoscopic surgery:
A review of a 50 year contribution to Spine Care**
Anthony Yeung
(Desert Institute for Spine Care, USA)

Luncheon Seminar 1

12:00 - 13:00, November 24 (Wed.), 2021 Hall 1

Moderator: Hiroaki Nakamura (Osaka City University, Japan)

LS1-1 **Transforaminal advanced lumbar disc surgery**

Fumitake Tezuka

(Department of Orthopedics, Tokushima University, Japan)

LS1-2 **New techniques of full-endoscopic spine surgery -FEL, HDOI, KLIF-**

Koichiro Ono

(Department of Orthopedics Nippon Medical School, Japan)

Co-sponsored by NIPRO & Richard Wolf

Special Program 1

13:10 - 14:10, November 24 (Wed.), 2021 Hall 1

Moderator: Akira Dezawa (Meiryukai, Japan)

SP1-1 **State of the art in minimally invasive spine surgery using full-endoscopic technology**

Koichi Sairyo

(Department of Orthopedics, Tokushima University, Japan)

SP1-2 **Evolution of total en bloc spondylectomy (TES)**

Hideki Murakami

(Department of Orthopaedic Surgery, Graduate School of Medical Sciences, Nagoya City University, Japan)

Co-sponsored by SENKO MEDICAL INSTRUMENT Mfg.

Symposium 2

14:20 - 16:00, November 24 (Wed.), 2021 Hall 1

Leading edge Endoscopic Spine Fusion Symposium

Moderators: Akira Dezawa (Meiryukai, Japan)

Koichi Sairyo (Tokushima University, Japan)

S2-1 **Full endoscopic trans-Kambin triangle lumbar interbody fusion: surgical technique and clinical outcome**

Masatoshi Morimoto

(Tokushima University Graduate School, Japan)

S2-2 **Full-endoscopic KLIF and Educational System in Japan**

Seiji Yamaya

(Center of Endoscopic Spine Surgery, Department of Orthopaedic Surgery, Sendai Nishitaga Hospital, Japan)

S2-3 **Endoscopic TLIF**

Hyeun Sung Kim

(Nanoori Gangnam Hospital, Spine Surgery, Seoul, Korea)

- S2-4 UBE-TLIF**
Javier Quillo Olvera
(The Brain and Spine Care, Minimally Invasive Spine Surgery Group. Anahuac University, School of Medicine, Mexico)
- S2-5 Endoscopic Fusion**
Malcolm Pestonji
(MGM Hospital & Research Centre Private Limited, India)
- S2-6 Posterior lumbar interbody fusion by biportal technique using 30 degrees arthroscope in lumbar degenerative disease**
Seok-Bong Jung
(Jinju Bon Hospital, Spine Center, Korea)
- S2-7 Percutaneous endoscopic transforaminal lumbar interbody fusion: a novel technique- sentinel pinning for protection of exiting root**
Yi Hung Huang
(Chia Yi Christian Hospital, National Cheng Kung University Hospital, Taiwan)

Evening Seminar 1

17:00 – 18:00, November 24 (Wed.), 2021 Hall 1

Moderator: Yoshiharu Kawaguchi (University of Toyama, Japan)

- ES1-1 Radiation exposure to the medical staff during minimally invasive spine surgery ~the essential knowledge and reduction technique ~**
Kazuta Yamashita
(Tokushima University Hospital, Japan)
- ES1-2 Management Strategy for Dura Tears following Transforaminal Endoscopic Spinal Surgeries: From simple dura tear to an exceptional serious complication**
Jin-Sung Kim
(Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Korea)

Co-sponsored by Johnson & Johnson

General Session 1

9:20 - 10:10, November 24 (Wed.), 2021 Hall 2

FESS for Lumbar Pathology

Moderator: Gun Choi (Pohang Woori Hospital, Korea)

Keynote Lecture

Gun Choi

(Pohang Woori Hospital, Korea)

- GS1-1 An early recurrence case of lumbar disc herniation after full-endoscopic lumbar discectomy**

Kazuma Doi

(Shinyurigaoka General Hospital, Japan)

- GS1-2 Effectiveness of full-endoscopic posterolateral approach for recurrent lumbar disc herniation in the lateral recess**

Yasuhiro Nakajima

(Daido Hospital Neuro-Spine Center, Japan)

- GS1-3 Transforaminal Decompression of Severe Spinal Stenosis in Elders**

Tolgay Satana

(Dr Tolgay Satana, Turkey)

- GS1-4 Usefulness of Full-endoscopic lumbar foraminoplasty (FELF) for lateral stenosis**

Takashi Inokuchi

(Tokushima University, Japan)

- GS1-5 Full-endoscopic resection for lumbar facet joint cysts: Effectiveness of indigo carmine injection into the facet joint before operation**

Kohei Ota

(Tokushima University, Japan)

General Session 2

10:20 - 11:00, November 24 (Wed.), 2021 Hall 2

FESS for Intradiscal Pathology

Moderator: Akihiro Nagamachi (Takamatsu Municipal Hospital, Japan)

- GS2-1 Spinal kinematics of Type 1 Modic change**

Yuji Yamada

(Anan Medical Center, Japan)

- GS2-2 Characteristics of low back pain in professional baseball players and surgical treatment**

Masatoshi Morimoto

(Tokushima University, Japan)

- GS2-3 Effectiveness and limitations of full-endoscopic spine surgery via a transpedicular approach for highly migrated lumbar disc herniation**
Hiroki Yoshimatsu
(Aichi Spine Hospital, Japan)
- GS2-4 Full-endoscopic disc cleaning and thermal annuloplasty in discogenic chronic low back pain**
Akihiro Nagamachi
(Takamatsu Municipal Hospital, Japan)

Luncheon Seminar 2

12:00 – 13:00, November 24 (Wed.), 2021 Hall 2

Moderator: Toshinori Sakai (Tokushima University, Japan)

LS2 Vertebral Augmentation for Osteoporotic and Osteolytic Vertebral Fractures

Daisuke Togawa
(Departments of Orthopaedics and Rheumatology, Kindai University Nara Hospital, Japan)

Co-sponsored by NuVasive Japan

General Session 3

14:20 – 16:00, November 24 (Wed.), 2021 Hall 2

MIS for Spinal Cord Pathology

Moderator: Yoshihiro Kitahama (Suzukake Central Hospital, Japan)

Keynote Lecture

Joachim Oertel
(Dept. of Neurosurgery, University of Saarland, Germany)

- GS3-1 Simultaneous single-stage decompression of the cervical and lumbar spine for patients with symptomatic tandem spinal stenosis: Surgical strategy using uniportal and biportal techniques**
Javier Quillo Olvera
(The Brain and Spine Care Group, Hospital H+, Queretaro, MX. , Mexico)
- GS3-2 Biportal endoscopic unilateral laminotomy with bilateral decompression for the treatment of cervical spondylotic myelopathy. A technical case report**
Ji Yeon Kim
(Leon Wiltse Memorial Hospital, Korea)
- GS3-3 Stridor and sialorrhea as initial manifestations of diffuse idiopathic skeletal hyperostosis (DISH)**
Ali hammed
(Tishreen university hospital, Syria)

- GS3-4 Comparative analysis of three types of minimally invasive posterior cervical foraminotomy for the foraminal stenosis; Uniportal endoscopy, Biportal endoscopy, and Microsurgery**
Ji Yeon Kim
(Leon Wiltse Memorial Hospital, United States)
- GS3-5 Solitary plasmacytoma of the thoracolumbar spine: interdisciplinary management using Closing Posterior ? Opening Anterior Wedge osteotomy and radiotherapy**
Ali hammed
(Tishreen university hospital, Syria)
- GS3-6 Percutaneous Endoscopic Thoracic Discectomy**
Tolgay Satana
(Dr Tolgay Satana, Turkey)
- GS3-7 A case of adult-onset Tethered cord syndrome**
Yasuhiro Node
(SHIN-YURIGAOKA General Hospital, Japan)
- GS3-8 Effectiveness of percutaneous endoscopic cyst puncture for evaluating the therapeutic effect of cystectomy for perineural cyst**
Eiji Abe
(Spine and Spinal Cord Center, Juntendo University, Japan/Department of Neurosurgery, Juntendo University)

General Session 4

16:10 - 16:40, November 24 (Wed.), 2021 Hall 2

MIS Spinal Fusion

Moderator: Fujio Ito (Aichi Spine Hospital, Japan)

- GS4-1 Percutaneous full-Endoscopic Kambin Lumbar Interbody Fusion (PE-KLIF) with pedicle screw fixation including L5/S1 level**
Fujio Ito
(Aichi Spine Hospital, Japan)
- GS4-2 Early clinical results of full-endoscopic lateral lumbar interbody fusion via Kambin's triangle for degenerative lumbar disc diseases**
Hiroki Iguchi
(Department of Orthopaedic Surgery, Takamatsu Municipal Hospital, Japan)
- GS4-3 Stress fracture of the contralateral pedicle with unilateral lumbar spondylolysis in 4 cases**
Shinya Nakagawa
(Department of Orthopedics, Tokushima University, Japan)

Moderator: Akira Dezawa (Meiryukai, Japan)

ES2-1 Robotics: a “Swiss Knife“ for the Digital O.R. ?

Ferdinand Feldhütter

(Jr. Product Manager Cirq Robotics, Brainlab, Germany)

ES2-2 Scoliosis Surgery -New workflow for Anterior VATS and Posterior Scoliosis Surgery with Navigation based Robotic Arm in Spine Hybrid Operation Room

Sohei Ebara

(Vice President of Shonan Fujisawa Tokushukai Hospital, Director of Spine and Scoliosis Center, Japan)

Co-sponsored by BRAINLAB

General Session 5

9:00 - 10:20, November 24 (Wed.), 2021 Hall 3

New Technology

Moderator: Kazuta Yamashita (Tokushima University, Japan)

Keynote Lecture

Future prospect and our experience of augmented reality microscope for spine surgery

Fumitake Tezuka

(Department of Orthopedics, Tokushima University, Japan)

GS5-1 Anterior transarticular screw fixation under Navigation guided drill

Takaoki Kimura

(Shin-yurigaoka General Hospital, Japan)

GS5-2 Efficacy of Atlantoaxial Transarticular Screw Fixation Using Navigation-Guided Drill

Takeshi Hara

(Spine and Spinal Cord Center, Juntendo University, Japan/Department of Neurosurgery, Juntendo University)

GS5-3 Initial experience with a new navigation system in surgery for spinal intramedullary tumors

Daichi Kawamura

(Department of Neurosurgery, Jikei University Hospital, Japan)

GS5-4 A comparative study of variable direction drilling-assisted full endoscopic Trench technique and traditional Trench technique for central cervical intervertebral disc herniation

Du Yu

(the Second Affiliated Hospital of Chongqing Medical University, China)

GS5-5 Clinical outcomes evaluation of percutaneous endoscopic cervical discectomy with lamina-hole approach for cervical radiculopathy

Cheng Si

(the Second Affiliated Hospital of Chongqing Medical University, China)

GS5-6 Preliminary outcomes of 270-degree intervertebral foramina compression involving posterior percutaneous endoscopic cervical discectomy for cervical spondylotic radiculopathy

Yan Zheng Jian

(the Second Affiliated Hospital of Chongqing Medical University, China)

Risk Management

Moderator: Yasuhiro Nakajima (Daido Hospital, Japan)

GS6-1 Risk of dural injury and kidney injury according to transforaminal approach

Takashi Inokuchi

(Tokushima University, Japan)

GS6-2 Extraforaminal Stenosis at L2-L3 Treated with Microendoscopic Surgery: Report of Two Cases

Arihiko Tsukamoto

(Sapporo Medical University Hospital, Japan)

GS6-3 A preoperative scoring system for predicting adjacent vertebral fracture after balloon kyphoplasty using whole spine X-ray

Koji Matsumoto

(Department of Orthopaedic Surgery, Nihon University Itabashi Hospital, Japan)

GS6-4 A case of full-endoscopic discectomy for highly migrated lumbar disc herniation divided into two stages

Takuma Abe

(Department of Orthopedics, Tokushima University, Japan)

Moderator: Yukoh Ohara (Juntendo University, Japan)

LS3-1 Sexual Dysfunction and Genitopelvic Dysesthesia (GPD) due to Spinal Abnormalities: The Role of Endoscopic Spine Surgery

Choll W. Kim

(Excel Spine Center, San Diego, CA, USA)

LS3-2 Thought on the best endoscopic procedure at lumbosacral level

Jin-Sung Kim

(Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Korea)

Co-sponsored by ellquence international

FESS Educational Symposium at WCMISST

Moderators: Kazuyoshi Nakanishi (Nihon University, Japan)
Kota Watanabe (Keio University, Japan)

S3-1 Effectiveness of the new training system of full endoscopic spine surgeries using NIPRO Bone Model

Kosuke Sugiura

(Department of Orthopedics Institute of Biomedical Sciences Tokushima University Graduate School, Japan)

S3-2 Educational training using a fellowship program

Kiyoshi Yagi

(Nagoya City University, Japan)

S3-3 Endoscopy Education and training in India

Pramod Lokhande

(Gurukrupa Spine Clinic, India)

S3-4 Educational System in Taiwan for Minimally Invasive and Endoscopic Spine

Jwo-Luen Pao

(Far Eastern Memorial Hospital, Taiwan)

S3-5 SPINE SURGERY FELLOWSHIP TRAINING IN INDONESIA 1994-2021

Luthfi Gatam

(Fatmawati General Hospital, Indonesia)

Moderator: Takashi Chikawa (Tokushima Prefecture Naruto Hospital, Japan)

ES4 Efficacy and impact of minimally invasive spinal treatment (MIST) in an aged society

Ken Ishii

(Department of Orthopaedic Surgery, School of Medicine, International University of Health and Welfare (IUHW), Japan)

Co-sponsored by Asahi Kasei Pharma

Moderator: Yoshiyasu Arai (Saiseikai Kawaguchi General Hospital, Japan)

ES3-1 lateral access surgery A to Z -Tips and clinical results in LIF, lateral access corpectomy and ACR-

Masayuki Ishihara

(Department of Orthopaedic Surgery, Kansai Medical University Hospital, Japan)

ES3-2 Tips, tricks and traps during minimally invasive spine surgery

Koichiro Ono

(Department of Orthopedics, Nippon Medical School, Japan)

Co-sponsored by Baxter

November 24 (Wed.), 2021 Hall 4

Hands-on Seminar 1

10:00 – 11:00, November 24 (Wed.), 2021 Hall 4

MAZOR X

Co-sponsored by Medtronic Japan

Hands-on Seminar 2

15:00 – 16:00, November 24 (Wed.), 2021 Hall 4

AR NAVIGATION

Co-sponsored by BRAINLAB & Carl Zeiss Meditec AG

Sponsored Symposium 1

8:30 – 9:30, November 25 (Thu.), 2021 Hall 3

Novel Technology Symposium

Moderator: Fumitake Tezuka (Tokushima University, Japan)

SS1-1 Clinical Relevance of preventing implant contamination during spine surgery

Neel Anand

(Professor of Orthopaedic Surgery, Director of Spine Trauma, Cedar Sinai Medical Center, Los Angeles, CA, USA)

SS1-2 Role of synthetic biologics in Spine Surgery

Anand Agarwal

(Spine Surgeon, CEO, OsteoNovus Inc., Toledo OH)

SS1-3 3D-exoscopic visualization using ORBEYE in spinal procedures

Kentaro Yamane

(Okayama Medical Center, Japan)

SS1-4 Three Dimentional Spine Model for FESS

Ryo Okada

(Tokushima Prefectural Miyoshi Hospital, Japan)

Co-sponsored by OsteoNovus & medical.order.japan

Sponsored Symposium 2

9:40 – 10:40, November 25 (Thu.), 2021 Hall 3

KJT Korea-Japan-Taiwan Cutting Edge Symposium

Moderators: Hyeun Sung Kim (Nanoori Gangnam Hospital, Korea)

Chien-Min Chen (Changhua Christian Hospital, Taiwan)

SS2-1 Effect of Dorsal Root Ganglion Retraction in Endoscopic Lumbar Decompressive Surgery for Foraminal Pathology: A Retrospective Cohort Study of Interlaminar Contralateral Endoscopic Lumbar Foraminotomy and Discectomy versus Transforaminal Endoscopic Lumbar

Hyeun Sung Kim

(Nanoori Gangnam Hospital, Spine Surgery, Seoul, Korea)

SS2-2 The current indications of single port endoscope. What should we use for?

Yukoh Ohara

(Department of Neurosurgery Juntendo university, Spine and spinal cord center Juntendo university hospital, Japan)

SS2-3 Full endoscopic application in spinal tumor

Chien-Min Chen

(Department of Neurosurgery, Changhua Christian Hospital, Changhua, Taiwan)

- SS2-4** **Percutaneous Endoscopic Transforaminal Lumbar Interbody Fusion (PETLIF)
-A New Modified Technique for Treating Degenerative Lumbar Spondylolisthesis-**
Katsuhsia Yamada
(Department of Orthopaedic Surgery, Hokkaido University Hospital, Japan)

Co-sponsored by NAKANISHI

Luncheon Seminar 4

12:00 - 13:00, November 25 (Thu.), 2021 Hall 3

Moderator: **Kazuo Omori** (Nippon Koukan Hospital, Japan)

- LS4-1** **Application of joimax® endoscope in spine decompression and fusion**
Ralf Wagner
(LIGAMENTA Spine Center, Rotkreuz-Hospital, Frankfurt, Germany)
- LS4-2** **Navigation and Current Spinal Endoscopic Surgeries with the Latest Devices**
Christoph P. Hofstetter
(Department of Neurological Surgery, University of Washington, Seattle, WA, USA)

Co-sponsored by Japan Medicalnext

General Session 7

15:00 - 16:00, November 25 (Thu.), 2021 Hall 3

FESS Special Technique

Moderator: **Takashi Tomita** (Aomori Prefectural Central Hospital, Japan)

Keynote Lecture

- Motor control exercise with “Beyond Pilates” after the surgery through my experience**
Junya Takeda
(Clinic for Orthopedics, Sports Medicine & Nutrition, Japan)

- GS7-1** **Full Endoscopic Spinal Surgery in Sub-Saharan Africa: Our Experience**
Musa Ibrahim Z
(Department of Surgery, Murtala Muhammad Specialist Hospital Kano, Nigeria)
- GS7-2** **Full-endoscopic Translaminar Approach for Lumbar Disc Herniation Cranially Migrated in the Medial Side of Pedicle**
Shigeki Urayama
(Dept. of Orthop. Surg., Mizuno Memorial Hospital, Japan)
- GS7-3** **Long term clinical research of 155 cases of Full Endoscopic Single level Lumbar Discectomy**
Yoshihiro Kitahama
(Spine Center, Suzukake Central Hospital, Japan/Neurosurgery, Hamamatsu University School of Medicine/Medical Technology Innovation Center, Juntendo University/Engineering, Shizuoka University)

- GS7-4 Full-endoscopic Spinal Surgery for a Giant Lumbar Disc Herniation: A Case Report**
Takeshi Umebayashi
(Tokyo Spine Clinic, Japan)

Special Program 2

16:10 - 17:10, November 25 (Thu.), 2021 Hall 3

The TAIKAN: Professional Support for Athletes

Moderator: Toshihiko Yamashita (Sapporo Medical University, Japan)

- SP2-1 Exercise therapy with yoga for low back pain**
Emi Motohashi
(Educate Movement Institute Association, Japan)
- SP2-2 Pilates Method for The Tennis Player**
Shizu Katsumi
(Niigata Tennis Association, Japan)
- SP2-3 The Approach for TAIKAN by Athletic Trainer**
Rieko Kuramochi
(School and Graduate School of Health and Sport Sciences, Chukyo University, Japan)
- SP2-4 Post-operative Support Using Pilates Procedure**
Miori Yamazaki
(Clinic for Orthopedic, Sports Medicine and Nutrition, Daikanyama, Pilates Lab, Daikanyama / Aoyama Reserve, Japan)

Invited Lecture 2

17:15 - 18:15, November 25 (Thu.), 2021 Hall 3

Moderator: Akira Dezawa (Meiryukai, Japan)

- IL2 Full-endoscopic decompression in spinal stenosis**
Sebastian Ruetten
(Center for Spine Surgery and Pain Therapy, Center for Orthopaedics and Traumatology, St. Anna Hospital Herne/Marien Hospital Herne University Hospital/Marien Hospital Witten, - St. Elisabeth Group - Catholic Hospitals Rhein-Ruhr - Herne, Germany)