A. LOW BACK PAIN I
Moderators: William Marras and Osamu Shirado
Room: R22

SP1. The relationship between degenerative lumbar scoliosis and low back pain in patients with lumbar spinal stenosis - A cohort study
Watanabe, K, Otani, K, Onda, A, Nikaido, T, Yabuki, S, Kikuchi, S, Konno, S: Fukushima city, Japan

SP2. Validation of the Estimation of Physiologic Ability and Surgical Stress (E-PASS) in thoracolumbar instrumented spine surgery for elderly patients
Togawa, D, Kanayama, M, Shigenobu, K, Oha F, Yamada, K, Hashimoto, T: Hokkaido, Japan

SP3. Enhanced activation of the posterior cingulate cortex by lumbar mechanical stimulus in chronic low back pain patients: an fMRI study
Yoshida, K, Kurata, J, Matsuo, Y, Yamazaki, H, Kouta, T, Sekiguchi, M, Konno, S: Fukushima City, Japan, Kyoto city, Japan

SP4. Evaluation of the quality of life of patients with lumbar spinal stenosis using the japanese orthopaedic association back pain evaluation questionnaire
Hideki, I, Keisuke, T, Tetuya, T, Fuminori, S, Kohei, K, Yoshitomo, O: Saitama, Japan

SP5. Characteristics of lumbar extensor muscle size and strength in women with lumbar degenerative diseases scheduled for fusion surgery
Lee CS, Chung SS, Kang KC; Park SJ: Seoul, Republic of Korea

SP6. Intradiscal injection of COX-2, but not COX-1 inhibitor reduces CGRP expression in dorsal root ganglion neurons innervating injured intravertebral disks in rats
B. COMPLICATIONS
Moderators: Peter Fritzell and Everard Munting
Room: R23

SP7. Factors affecting the occurrence of postoperative pulmonary embolism following spinal surgery data from the Japanese diagnosis procedure combination database
Masuda, K, **Hara, N**, Chikuda, H, Takeshita, K, Yasunaga, H, Horiguchi, H, Matsuda, S, Nakamura, K: Tokyo, Japan and Fukuoka, Japan

SP8. Efficacy of nanostructured titania in the management of infection due to spinal implants
Aboelzahab, A, Azad, A-M. Goel, V, Biyani, A, Ebraheim, N, **Serhan, H**: Toledo, United States and Waltham, United States

SP9. Anterior re-operation at the same level following lumbar total disc replacement
**Blumenthal, S**, Guyer, R, Zigler, J; Ohnmeiss, D: Plano, Texas, United States

SP10. Evaluation of the lumbar intervertebral disc degeneration in collegiate athletes using magnetic resonance diffusion-weighted imaging
**Otsuka, S**, Yanagisawa, O, Hangai, M, Sekine, C, Eguchi, Y, Kaneoka, K: Saitama, Japan, Tokyo, Japan, Chiba, Japan

SP11. Evaluation of dynamic mobility in osteoporotic vertebral fracture non-union for the appropriate diagnosis and prediction of vertebral deformity correction with vertebroplasty
**Takemasa, R**, Kiyasu, K, Tani, T, Kawasaki, M, Tadokoro, N, Kasai, Y: Kochi, Japan

SP12. A comparative study between Anterior Lumbar Interbody Fusion with and without Pedicle Screw Fixation for Isthmic Spondylolisthesis. A long term follow up study
**Mossaad, MM**, Ahmed, M: Zagazig-Sharkia, Egypt
C. NERVE / CELL BIOLOGY I/MISCELLANEOUS
Moderators: Kee-Yong Ha and Koichi Masuda
Room: R24

SP13. p38<alpha> and p38<beta> MAPK repress inflammatory stress-induced expression of MMP-1 and MMP-3, respectively, in human nucleus pulposus cells

SP14. Role of PGE2 on the regulation of lumbar intervertebral disk degeneration
Sawaji, Y, Endo, K, Kimura, D Tanaka, H, Kosaka, T: Tokyo, Japan

SP15. High osmolality reduces the proliferation rate of nucleus pulposus intervertebral disc cells, negatively regulates their response to exogenous growth factors and activates an enhanced DNA repair mechanism
Mavrogonatou, E, Kletsas, D: Athens, Greece

SP16. Diffusion weighted magnetic resonance imaging of symptomatic nerve root of patients with lumbar disc herniation

SP17. Oxygen environment and mechanical stress can promote expression of VEGF by disc cells

SP18. The polyphenol resveratrol shows promising potential for the treatment of nucleus pulposus mediated pain in vitro and vivo
Wuertz, K, Quero, L, Sekiguchi, M, Klawitter, M, Nerlich, A, Konno, S, Kikuchi, S, Boos, N: Zurich, Switzerland; Fukushima, Japan, Munich, Germany
D. SURGERY
Moderators: Mark Brown and David Wong
Room: R25

SP19. Outcome of lumbar surgery in patients with hemodialysis-related spondyloarthropathy
Ogihara, S, Kunogi, J, Masuyama, S, Sasagawa, T, Takeuchi, Y, Fukushima, M, Kashiyama, T: Tokyo, Japan

SP20. Sagittal rebalance after pedicle subraction osteotomy at the lumbar spine

SP21. Risk factor for adjacent segment degeneration after surgical correction of degenerative lumbar scoliosis
Ha, K-Y, Oh, I-S: Seoul, Republic of Korea and Incheon, Republic of Korea

SP22. Comparison of clinical and radiological outcomes of three surgical techniques in Scheuermann’s kyphosis
Mehedian, H, Arun, R, Copas D, Mehta, J: Nottingham, UK

SP23. Night-time Providence bracing compared to full time Boston bracing in adolescent idiopathic scoliosis. A prospective randomized study
Wessberg, P, Hedlund, R, Nordwall, A: Gothenburg, Sweden

SP24. Rapid and sensitive detection of bacteria by real-time PCR in pyogenic spondylitis cases
Nakamura, Y, Aota, Y, Inaba, Y, Nakamura, N, Kobayashi, N, Kawai, T, Tanabe, H, Choe, H, Wakayama, Y, Yamaguchi, Y, Saito, T, Yokohama-city, Japan
E. THE AGING SPINE: SPINAL STENOSIS / OSTEOPOROSIS
Moderators: Ashish Diwan and Chang-Hoon Jeon
Room: R26

SP25. Analysis of prognostic factors affecting ambulatory status for patients with metastatic spinal tumor - Use of the Revised Tokuhashi Score
   Takuya, K, Aota, Y, Nakamura, N, Tanabe, H, Nakamura, Y, Yamaguchi, Y, Saito, T: Yokohama, Japan

SP26. Spondylolisthesis following osteoporotic fracture in middle-lower lumbar vertebra: clinical features and surgical treatment
   Yamashita, T, Sakaura, H, Miwa, T, Ohwada, T: Hyogo, Japan

SP27. Clinical outcomes of lumbar spinal surgery in elderly patients more than 75 years old

SP28. Patient concerns about undergoing elective musculoskeletal surgery
   Rampersaud, YR, Gandhi, R, Hudak, P, Veillette, C, Syed K, Lewis, S, Ogilvie-Harris, D, Davey, R, Mahomed, N: Toronto, Canada

SP29. Spinal stenosis in the spine patient outcomes research trial (Sport): Does psychological distress affect treatment outcome?
   Davis, G Spratt, KF, Abdu, WA, Zhao, W, Albert, A, Weinstein, JN: Lebanon, United States

SP30. Biomechanical, histological and histomorphometric analyses of calcium phosphate cement compared to PMMA for vertebral augmentation in a validated animal model
   Perez-Higueras, A, Altonaga, JR, Orden MG, Mariñoso Barba, ML, Carrascal Morillo, MT, Alvarez L: Madrid, Spain; Leon, Spain, Barcelona, Spain
F. SURGERY OUTCOMES

Moderators: Sigurd Berven and Tomoaki Toyone
Room: R22

SP31. Survival analysis of metastatic spine disease: Surgery Vs. conservative treatment

SP32. Long term 2 to 4 year clinical and functional outcomes of minimally invasive surgery (MIS) for adult spinal deformity
Anand, N, Daroudi, S, Kahwaty, S, Baron, E: Los Angeles, United States

SP33. Assessment of the incremental cost-utility of surgery compared to failed medical management for the treatment of hip, knee and spine osteoarthritis
Rampersaud, YR, Tso, P, Walker, K, Eagen, B, Lewis, S, Gandhi, R; Davey, R, Mahomed, N, Coyte, P: Toronto, Canada (Moved from 22)

SP34. Comparison of two different approaches to the spinal canal for lumbar decompression: The significance of spinous process preservation
Morita, M, Nakamura, H: Osaka city, Japan

SP35. Outcomes after revision surgery to treat proximal junctional kyphosis

SP36. Clinical course of sciatica is not correlated to the percentage reduction in disc herniation
el Barzouhiel, A, Vleggeert-Lankamp, C, Jacobs, W, Peul, W: Leiden, Netherlands
G. LOW BACK PAIN II
Moderators: Louis Jenis and Tom Oxland
Room: R23

SP37. Parameters affecting spinal loads during sitting
Rohlmann, A, Dreischarf, M, Zander, T, Graichen, F, Bergmann, G: Berlin, Germany

SP38. Incidence of lumbar spondylolisthesis in patients with severe knee or hip arthritis
Hashimoto, K, Soshi, S, Marumo, K, Tanaka, T, Kida, Y: Tokyo, Japan and Utsunomia, Japan

SP39. Age-related changes in the muscle thickness of the deep and superficial Abdominal muscle

SP40. Findings of a pilot, randomized controlled trial for non-specific low back pain in the US military

SP41. Dominant-negative TNF effectively antagonizes IL-1<beta>-induced catabolic changes in human intervertebral disc cells
Pichika, R, Penta, K, Yoshikawa, T, Hemmad, A, Szymkowski, D, Benette, F, Masuda, K, La Jolla, United States; Sunnyvale, United States Monrovia, United States; Sunnyvale, United States

SP42. Local anesthetics are cytotoxic to intervertebral disc cells in cultured rabbit explants
Lenart, BA, Al-Shihabi, L, Chee, A, Park, C, Zhang, Y, An, HS: Chicago, IL, United States
**H. FUSION/ STENOSIS**

Moderators: Robert Gunzburg and Jin-Hwan Kim
Room: R24

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**SP43.** Can we consider adjacent segment disease as being caused by fusion?: observations in 319 cases of follow-up MRI
Jeon, CH, Chung, NS, Park, DY, Kim, TH: Kyounggido, Republic of Korea

**SP44.** A biomechanic comparison of bicortical sacral screw versus a unicortical and ala screw fixation system
Paxinos, O, Zindrick, M, Voronov, L, Havey, R, Lorentz, M, Tsitsopoulos, P, Ghanayem, A, Patwardhan, A: Athens, Greece, Hinsdale IL, United States; Hines, IL, United States; Maywood, IL, United States

**SP45.** Can MRI replace myelography or CT myelography in lumbar spinal stenosis?
Sasaki, K, Hasegawa, K, Shimoda, H, Homma, T: Niigata City, Japan

**SP46.** Toxicity of Methylene Blue in the epidural space
O’Neill, C, Thullier, D, Buser, Z, Liebenberg, E: El Naga, A, Coughlin, D, Lotz, J: San Francisco, United States

**SP47.** Anterior alone lumbar interbody fusion with rhBMP-2: a prospective study of clinical and radiographic outcomes
Ewing, L, Lisle, D, Pearcy, M, Licina, P: Brisbane, Australia

**SP48.** Outcome and radiographic assessment of lateral lumbar interbody fusion performed as a stand-alone procedure
I. DEGENERATIVE DISC BIOLOGY
Moderators: Jeffrey Lotz and Ho-Joong Kim
Room: R25

SP49. Role of biomolecules on cross-ply mechanics of the annulus fibrosus
   Isaacs, J, Vresilovic, E, Marcolongo, M: Philadelphia, United States

SP50. A novel in vitro explant model for studies of cellular migration in
   intervertebral discs
   Barreto Henriksson, H, Svala, S, Skiolebrand, E, Junevik, K, Lindahl, A,
   Brisby, H: Gothenburg, Sweden and Uppsala, Sweden

SP51. Proliferative response of human intervertebral disc cells to exogenous and
   autocrine growth factors: Involvement of pivotal signaling pathways
   Pratsinis, H, Constantinou, V, Pavlakis, K, Sapkas, G, Kletsas, D: Athens, Greece

SP52. Effects of cyclic strain on the activation of signaling pathways and the
   proliferative behaviour of intervertebral disc cells in vitro
   Pratsinis, H, Iconomopoulos, S, Neidlinger-Wilke, C, Kletsas, D: Athens,
   Greece, Ulm, Germany

SP53. Is the morphology and size of schmorl's nodes of the lumbar spine related to
   severity of disc degeneration?
   Mok, F, Samartzis, D, Karppinen, J, Fong, D, Luk, K, Cheung, K: Hong Kong,

SP54. Genotoxic stress accelerates intervertebral disc matrix loss
   Vo, N, Aurelio Nasto, L, Wang, D, Robinson, A, Clauson, C, Dong, Q, Choe,
   States; Beijing, China, Montreal, Canada
J. OUTCOME MEASUREMENTS / MEDICAL ECONOMICS

Moderators: Jeremy Fairbank and Kotaru Nishida
Room: R26

SP55. Normal values of the Japanese version of the Zurich Claudication Questionnaire (ZCQ)
Hara, N, Masuda, K, Morii, J, Tohnosu, J, Takeshita, K, Nakamura, K, Matsudaira, K: Tokyo, Japan, Kawasaki, Japan

SP56. A comparison of goal achievement and traditional self-report measures as contributors to overall patient satisfaction 1 year following functional restoration for patients with chronic disabling spinal disorders
Hazard R, Spratt, K, McDonough, C, Olson, C, Ossen, E, Hartmann, EM: Lebanon, United States

SP57. Development and validation of a quality of life scale specific for lumbar spinal stenosis
Sekiguchi, M, Wakita, T, Otani, K, Onishi, Y, Fukuhara, S Kikuchi, S, Konno, S: Fukushima, Japan; Kyoto, Japan

SP58. Simplify outcome measurement
Hägg, O, Brisby, H, Jönsson, B, Strömqvist, B, Fritzell, P: Gothenburg, Sweden; Lund, Sweden and Falun, Sweden

SP59. Production losses due to low back pain while at work and out of it
Wieser, S, Mannion, A, Eisenring, C, Elfering, A, Brügger, U, Müller, U, Horisberger, B: Zurich, Switzerland; Winterthur, Switzerland; Berne, Switzerland;

SP60. A new outcome measure for Japanese individuals with Adolescent Idiopathic Scoliosis; An introduction and validation study
Shirado, O, Doi, T, Arai, Y; Takeshita, K, Iwabuchi, M, Akai, M, Iwaya, T, Shida, T: Aizu-wakamatsu, Japan; Tokyo, Japan; Tokorozawa, Japan