

# The 97th Annual Meeting of the Japanese Orthopaedic Association (I)

May 23-26, 2024 Fukuoka  
Congress President: Morio Matsumoto, M.D.  
Department of Orthopaedic Surgery,  
Keio University School of Medicine

1st Day May 23 Room 1

8 : 00 ~ 9 : 00	<b>Instructional lecture 1</b>	<b>Moderator T. Miyamoto</b>
1-1-EL1	Optimal distinction between clinical practice and research practice from the aspects of medical ethics and insurances ..... <i>Shoji Sanada</i> , Clinical and Translational Research Center, Kobe Univ. Hosp.···S1	
9 : 15 ~ 10 : 15	<b>Create the future lecture 1</b>	<b>Moderator N. Iwasaki</b>
1-1-CFL1	Advancement in robotic gastrointestinal surgery: The road to approval for medical insurance coverage and expectations for telesurgical network ..... <i>Koichi Suda, et al.</i> , Div. of GI & HPB, Dept. of Surg., Fujita Health Univ.···S1	
10 : 30 ~ 11 : 30	<b>Special lecture 1</b>	<b>Moderator K. Marumo</b>
1-1-SL1	The future orthopaedics in Japan that is developing from new technologies: How we treat musculoskeletal disorders in super-aged society? ..... <i>Masashi Yamazaki</i> , Dept. of Orthop. Surg., Univ. of Tsukuba···S2	
13 : 20 ~ 13 : 50	<b>Opening ceremony</b>	
13 : 50 ~ 14 : 30	<b>Congress president lecture</b>	<b>Moderator N. Iwasaki</b>
1-1-CL	Creation of future orthopaedics: In the era of 100 years of life ..... <i>Morio Matsumoto</i> , Dept. of Orthop. Surg., Keio Univ.···S2	
14 : 40 ~ 15 : 40	<b>Special lecture 2</b>	<b>Moderator S. Matsuda</b>
1-1-SL2	Emerging and re-emerging infectious diseases and infection control in hospitals ..... <i>Satoshi Kutsuna</i> , Graduate School of Medicine/Faculty of Medicine, Osaka Univ.···S3	
15 : 55 ~ 17 : 15	<b>Symposium 1</b>	<b>Moderators S. Arai, Y. Nakashima</b>
	<b>Disaster aid activities undertaken by orthopaedists during disasters: Current status and issues</b>	
1-1-S1-1	Current disaster medical activities and disaster support in the field of orthopaedics ..... <i>Hisayoshi Kondo</i> , DMAT Sec.···S4	
1-1-S1-2	Individual preparedness for disasters: Reflections on JMAT's efforts and prefectural medical association's response ..... <i>Yoshinori Nishi</i> , Nishi Orthop. Clinic···S4	
1-1-S1-3	Establishment and current status of the disaster response committee in the Japan orthopaedic association ..... <i>Taketo Kurozumi</i> , Trauma Center, Toranomon Hosp.···S5	
1-1-S1-4	Directions and challenges of disaster support activities of disaster medical team as orthopaedic practitioners: Including collaboration with other organizations ..... <i>Hidenori Kawamura</i> , Kawamura Orthop. Clinic···S5	

1-1-S1-5 Disaster rehabilitation support activity of Shizuoka JRAT in Atami  
 .....*Katsuya Yamauchi, et al.*, Dept. of Rehabil. Med., Hamamatsu Univ. Hosp.··S6

**17 : 30 ~ 18 : 30 Round-table discussion Creating the future: Learning from a top athlete**

*Naomi Masuko*, Former Japan representative volleyball player··S7  
*Masahiko Watanabe*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ.  
*Kazuki Sato*, Sports Medicine Research Center, Keio Univ.

**1st Day May 23 Room 2**

**8 : 00 ~ 9 : 00 Instructional lecture 2 Moderator Y. Matsumoto**

1-2-EL2 The significance of research for orthopaedic surgeons  
 .....*Seiji Okada*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S7

**9 : 15 ~ 10 : 15 Instructional lecture 3 Moderator H. Yamada**

1-2-EL3 Diagnosis, pathophysiology, and treatment of lumbar disc herniation based on the clinical practice  
 guideline 3rd edition .....*Hiroataka Haro*, Dept. of Orthop. Surg.,  
 Graduate School of Medical Science, Univ. of Yamanashi··S8

**10 : 30 ~ 11 : 30 Instructional lecture 4 Moderator N. Kawahara**

1-2-EL4 Congenital scoliosis .....*Noriaki Kawakami*, Dept. of Orthop. Surg., Ichinomiya Nishi Hosp.··S8

**12 : 00 ~ 13 : 10 Luncheon seminar 1 Moderator S. Matsuda**

1-2-LS1-1 Mastering the art of sutures and knots: Essential updates for today's orthopaedic surgeon  
 .....*Taro Mawatari*, Dept. of Orthop. Surg., KKR Hamanomachi Hosp.··S9  
 1-2-LS1-2 Tips for suturing technique: From tension reduction sutures to Z-plasty and local flaps  
 .....*Rei Ogawa*, Plastic, Reconstructive and Aesthetic Surg., Nippon Medical School··S9

**14 : 40 ~ 15 : 40 Instructional lecture 5 Moderator Y. Kudo**

1-2-EL5 Looking back on 10 years of adult spinal deformity surgical treatment: The evolution and future  
 .....*Yukihiro Matsuyama*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine··S10

**15 : 55 ~ 17 : 15 Symposium 2 Moderators Y. Kawaguchi, H. Inose  
 Degenerative disease: Long-term outcomes (10 years or more)**

1-2-S2-1 Long-term results of a prospective comparative study of surgical treatments for degenerative  
 lumbar spondylolisthesis  
 .....*Hiroyuki Inose, et al.*, Dept. of Orthop. Surg., Dokkyo Medical Univ. Saitama Medical Center··S11  
 1-2-S2-2 Long term results of surgical treatment for trapeziometacarpal osteoarthritis  
 .....*Hiroaki Sakano, et al.*, Dept. of Orthop. and Hand Surg. Hiratsuka Kyosai Hosp.··S11  
 1-2-S2-3 Analysis of long-term follow-up study for cervical laminoplasty  
 .....*Yoshiharu Kawaguchi*, Dept. of Orthop. Surg., Faculty of Medicine, Univ. of Toyama··S12  
 1-2-S2-4 Progress, long-term results and problems of total hip arthroplasty in this half-century  
 .....*Takuya Otani*, Dept. of Orthop. Surg., The Jikei Univ. Daisan Hosp.··S12  
 1-2-S2-5 Long term clinical results of TKA  
 .....*Tokifumi Majima, et al.*, Dept. of Orthop. Surg., Field of Surg.,  
 Nippon Medical School, Graduate School of Medicine··S13

17 : 30 ~ 18 : 30    **Instructional lecture 6**

**Moderator T. Oda**

1-2-EL6    Medical ethics and response to problems ······ *Yu Munakata*, Sekiya & Munakata Law Office···S14

**1st Day    May 23    Room 3**

8 : 00 ~ 9 : 00    **Instructional lecture 7**

**Moderator T. Sakai**

1-3-EL7    Anatomical analysis of the hip joint and surrounding structures and their relationship to the pelvic floor ······ *Keiichi Akita*, Dept. of Clin. Anat., Tokyo Medical and Dental Univ.···S14

9 : 15 ~ 10 : 15    **Instructional lecture 8**

**Moderator T. Shinohara**

1-3-EL8-1    Primary repair and early active mobilization for acute flexor tendon injuries of digits ······ *Koji Moriya*, Niigata Hand Surg. Foundation···S15

1-3-EL8-2    Extensor tendon rupture ······ *Hiroshi Yamazaki, et al.*, Dept. of Orthop. Surg., Aizawa Hosp.···S15

10 : 30 ~ 11 : 30    **Instructional lecture 9**

**Moderator T. Masatomi**

1-3-EL9    Implant selection, tips and pitfalls of surgical technique for total elbow arthroplasty ······ *Keiichiro Nishida*, Locomotive Pain Center, Okayama Univ. Hosp.···S16

12 : 00 ~ 13 : 10    **Luncheon seminar 2**

**Moderator M. Sato**

1-3-LS2-1    Patients screening for APS injection for knee osteoarthritis: Are the symptoms really caused by OA? ······ *Takahiro Ogura*, Funabashi Orthop. Mirai Clinic···S17

1-3-LS2-2    Considering the orientation of APS therapy for osteoarthritis ······ *Ayano Kuwasawa, et al.*, Dept. of Orthop. Surg., Saitama Cooperative Hosp.···S17

14 : 40 ~ 15 : 40    **Free papers 1    Hand & elbow: Arthritis**

**Moderators Y. Nishiura, T. Miura**

1-3-1    Comparative analysis of thumb circumduction characteristics in patients with carpal tunnel syndrome and trapeziometacarpal osteoarthritis ······ *Kentaro Tsuji, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ.···S18

1-3-2    Classification of morphology of osteophyte in elbow osteoarthritis using 3D-CT ······ *Koichi Sasaki, et al.*, Asabu Orthop. Hosp.···S18

1-3-3    The criteria for focused therapeutic intervention in lateral epicondylitis of the humerus using grip strength as an indicator ······ *Kazuhiro Ikeda, et al.*, Dept. of Orthop. Surg., Kikkoman General Hosp.···S19

1-3-4    Identification of the correct entry point for carpal implant placement to prevent intraoperative complications during total wrist arthroplasty for osteoarthritis ······ *Takeshi Endo, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S19

1-3-5    Three-dimensional analysis of thumb kinematics using CT after arthrodesis and arthroplasty for thumb carpometacarpal osteoarthritis ······ *Teruyasu Tanaka, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ.···S20

1-3-6    Long-term outcomes of radial shortening osteotomy for Kienböck's disease ······ *Tomoaki Suzuki, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S20

15 : 55 ~ 17 : 15 Symposium 3

Moderators K. Suzuki, M. Amako

**Cutting-edge diagnosis and treatment of lateral humeral epicondylitis**

- 1-3-S3-1 Anatomical knowledge in relation to the pathology of lateral epicondylitis  
.....*Akimoto Nimura*, Dept. of Functional Joint Anatomy,  
Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ.···S21
- 1-3-S3-2 Validity of MRI for chronic lateral epicondylitis of the humerus  
.....*Kazuhiro Ikeda, et al.*, Dept. of Orthop. Surg., Kikkoman General Hosp.···S21
- 1-3-S3-3 Conservative treatments for lateral epicondylitis  
.....*Hiroyasu Ikegami*, Dept. of Orthop. Surg., Toho Univ. (Ohashi)···S22
- 1-3-S3-4 Surgical treatment for the recalcitrant tennis elbow  
.....*Osamu Soejima*, Dept. of Orthop Surg., Fukuoka Sanno Hosp.···S22
- 1-3-S3-5 Lateral collateral ligament reconstruction with PL tendon for refractory humeral lateral  
epicondylitis accompanied with elbow instability  
.....*Hideaki Imada, et al.*, Dept. of Orthop. Surg., Higashi-Hiroshima Medical Center···S23

17 : 30 ~ 18 : 30 Instructional lecture 10

Moderator T. Izaki

- 1-3-EL10-1 The principle and surgical technique of anatomical total shoulder arthroplasty  
.....*Noboru Matsumura*, Dept. of Orthop. Surg., Keio Univ.···S24
- 1-3-EL10-2 Principles and surgical techniques of reverse shoulder arthroplasty  
.....*Kotaro Yamakado*, Dept. of Orthop. Surg., Fukui General Hosp.···S24

**1st Day May 23 Room 4**

8 : 00 ~ 9 : 00 Free papers 2 Total shoulder arthroplasty

Moderators M. Yamada, N. Ochiai

- 1-4-1 Early diagnosis of shoulder osteoarthritis by weight-bearing abduction views  
.....*Hiroshi Hashiguchi*, Dept. of Orthop. Surg., Reiwa Arakawa Hosp.···S25
- 1-4-2 Histopathological study on the humeral head: Osteoarthritis and rotator cuff tear arthropathy  
.....*Shingo Maesako, et al.*, Dept. of Orthop. Surg.,  
Graduate School of Medical and Dental Sciences, Kagoshima Univ.···S25
- 1-4-3 The impact of humeral liner constraint on impingement free range of motion and impingement type in  
reverse shoulder arthroplasty  
.....*Rei Nishiura, et al.*, Dept. of Orthop. Surg., Osaka Metropolitan Univ. Hosp.···S26
- 1-4-4 The risk of neuropathy associated with reverse shoulder arthroplasty using  
intraoperative neuromonitoring  
.....*Kohnan Tsuchiyama, et al.*, Dept. of Orthop. Surg., Hyogo College of Medicine···S26
- 1-4-5 Medium long-term results of RTSA: Is function and satisfaction at 1 year postoperatively maintained  
up to 5 years postoperatively? ·····*Kazuhiko Kikugawa, et al.*, Dept. of Orthop. Surg., Mazda Hosp.···S27
- 1-4-6 Humeral bone resorption and stress distribution after humeral stem insertion: Standard stem vs.  
short stem ·····*Kazuya Inoue, et al.*, Dept. of Orthop. Surg., Nara Medical Univ.···S27

9 : 15 ~ 10 : 15 Free papers 3 Knee: OA 1

Moderators S. Fukushima, K. Nakagawa

- 1-4-7 Synovitis is a risk factor for enlargement of bone marrow lesions in middle-aged population without  
knee osteoarthritis: The osteoarthritis initiative  
.....*Jun Shiozawa, et al.*, Dept. of Orthop., Juntendo Univ.···S28
- 1-4-8 The presence of bone marrow lesion in knee osteoarthritis is influenced by varus thrust in addition  
to medial meniscus lesions ·····*So Tanaka, et al.*, Dept. of Reha., Fukuoka Orthop. Hosp.···S28

- 1-4-9 Bony prominences near pes anserinus were increased in 6 years in middle-aged populations with K/L grade 0: Data from OAI ..... *Kengo Sugitani, et al.*, Dept. of Orthop., Juntendo Univ. ...S29
- 1-4-10 CPAK distribution of healthy Japanese population and comparison between OA knees ..... *Manabu Akagawa, et al.*, Dept. of Orthop. Surg., Omagari Kosei Medical Center ...S29
- 1-4-11 Bone marrow abnormalities are associated with knee pain in middle-aged populations with Kellgren-Lawrence grade 0: 6-year longitudinal analysis of OAI ..... *Jun Tomura, et al.*, Dept. of Orthop., Juntendo Univ. ...S30
- 1-4-12 Phase III clinical study of knee cartilage repair using a scaffold-free tissue-engineered construct generated from allogenic synovial mesenchymal stem cells ..... *Kazunori Shimomura, et al.*, Dept. of Rehab., Kansai Univ. of Welfare Sciences ...S30

**10 : 30 ~ 11 : 30 Free papers 4 Perioperative complication Moderators K. Kiyasu, T. Uematsu**

- 1-4-13 Perioperative complications of the occipital cervical fusion surgery for cervical trauma in patients aged over 80 years ..... *Norihiro Isogai, et al.*, Dept. of Orthop. Surg., International Univ. of Health and Welfare ...S31
- 1-4-14 Are nutritional, immunological and inflammatory markers for cancer prognosis useful in predicting surgical site infection in spinal instrumentation surgery? ..... *Kazumasa Konishi, et al.*, Dept. of Orthop. Surg., Kyorin Univ. ...S31
- 1-4-15 Bone changes in cranial CT images of dialysis patients: Investigation of risk factors for pin perforation in halo pins ..... *Hideaki Hamanaka, et al.*, Div. of Orthop. Surg., Dept. of Medicine of Sensory and Motor Organs, Faculty of Medicine, Univ. of Miyazaki ...S32
- 1-4-16 The influence of SSI/PJI in those with preoperative inflammatory positive reaction for total hip arthroplasty ..... *Daisuke Inoue, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ. ...S32
- 1-4-17 Relationship between abo blood type and the amount of blood loss in total knee arthroplasty ..... *Yoshihito Suda, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S33
- 1-4-18 The incidence of deep vein thrombosis and the change of values of D-dimer after arthroscopic rotator cuff repair ..... *Koji Akimoto, et al.*, Dept. of Orthop. Surg., Chiba Rosai Hosp. ...S33

**12 : 00 ~ 13 : 10 Luncheon seminar 3 Moderator H. Akiyama**

- 1-4-LS3 I'm an orthopedic surgeon, I can do it! Is a fixed prescription good enough for you? Kampo medicine as a tailor-made treatment for patient satisfaction ..... *Hiroyuki Maeda*, Maeda Hosp./Tokyo Spinal Cord Stimulation Center ...S34

**14 : 40 ~ 15 : 40 Free papers 5 Cervical spine surgery Moderators H. Miyamoto, K. Suzuki**

- 1-4-19 Impact of polypharmacy on surgical site infection after cervical laminoplasty: A retrospective, multi-institutional study of 1002 patients ..... *Toshiki Tsukui, et al.*, Dept. of Orthop. Surg., Gunma Univ. Hosp. ...S35
- 1-4-20 Recovery process using Japanese orthopaedic association cervical myelopathy evaluation questionnaire (JOACMEQ) in patients with cervical laminoplasty: A prospective study ..... *Sachiko Kawasaki, et al.*, Dept. of Orthop. Surg., Nara Medical Univ. ...S35
- 1-4-21 Open-door cervical laminoplasty with skip-fixation is not inferior to that with all-fixation: Multicenter, randomized controlled trial ..... *Koji Tamai, et al.*, Dept. of Orthop. Surg., Osaka Metropolitan Univ. Graduate School of Medicine ...S36
- 1-4-22 The pathogenesis of retro-odontoid pseudotumor ..... *Soya Kawabata, et al.*, Dept. of Orthop. Surg., Fujita Health Univ. ...S36
- 1-4-23 Multicenter study of risk factors for the development of retro-odontoid pseudotumor in patients with atlantoaxial subluxation ..... *Kohei Kuroshima, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S37

1-4-24 Postoperative nerve palsy in 1,434 cases of anterior cervical spine surgery: A multicenter study  
 ..... *Hiroaki Onuma, et al.*, Dept. of Orthop. and Spinal Surg.,  
 Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ.···S37

15 : 55 ~ 17 : 15	<b>Symposium 4</b>	<b>Moderators Y. Matsui, K. Kaneoka</b>
<b>Conservative treatment for the prevention of locomotive syndrome and frailty</b>		

- 1-4-S4-1 Importance of loco prevention for frailty prevention and association of sarcopenia with loco and frailty  
 ..... *Yasumoto Matsui*, Dept. of Orthop. Surg., National Center for Geriatrics and Gerontology···S38
- 1-4-S4-2 Early diagnosis and intervention in daily life for locomotive syndrome  
 ..... *Yasuhiko Takegami, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.···S38
- 1-4-S4-3 Prevention and treatment for aging with emphasis on Achilles tendinopathy  
 ..... *Soichi Hattori*, Dept. of Orthop. Surg., Univ. of Pittsburgh, PA, USA···S39
- 1-4-S4-4 Spinal disease and loco-frail measures based on longitudinal community health checkups  
 ..... *Kazuyoshi Kobayashi*, Dept. of Orthop. Surg.,  
 Japanese Red Cross Aichi Medical Center Nagoya Daini Hosp.···S39
- 1-4-S4-5 Conservative treatment method to maximize the prevention of locomotive syndrome and frailty: Osteoporosis ..... *Motohiko Sato*, Dept. of Orthop. Surg., Inoue Hosp.···S40
- 1-4-S4-6 Conservative treatment strategies maximizing locomotive syndrome and frailty prevention: Knee joint ..... *Toru Yamaguchi*, Dept. of Orthop. Surg., Zenshukai Hosp.···S40

17 : 30 ~ 18 : 30	<b>Free papers 6 Lumbar spine surgery</b>	<b>Moderators A. Wada, M. Yoshimoto</b>
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- 1-4-25 Risk factors of postoperative bladder dysfunction for patients with lumbar spinal canal stenosis  
 ..... *Hideaki Nakajima, et al.*, Dept. of Orthop. and Rehabilitation Medicine,  
 Faculty of Medical Sciences, Univ. of Fukui···S41
- 1-4-26 The clinical significance of PLSE: PLSE serves as a predictor of prolonged post-spinal surgery inflammatory response ..... *Ryo Yamamura, et al.*, Dept. of Orthop. Surg., Showa Univ.···S41
- 1-4-27 Bioactive porous titanium spacer for lateral lumbar interbody fusion  
 ..... *Takayoshi Shimizu, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.···S42
- 1-4-28 Establishing a standardized clinical consensus for reporting complications following lateral lumbar interbody fusion ..... *Kenyu Ito, et al.*, Dept. of Orthop. Surg., Aichi Spine Hosp.···S42
- 1-4-29 Biology in spine fusion model using bone graft substitute  
 ..... *Atsuyuki Kawabata, et al.*, Dept. of Orthop. Surg., Kudanzaka Hosp.···S43
- 1-4-30 Efficacy and safety of OLIF51 based on the preliminary registry data of the proctor facilities  
 ..... *Sumihisa Orita, et al.*, Center for Frontier Medical Eng., Chiba Univ.···S43

<b>1st Day May 23 Room 5</b>
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8 : 00 ~ 9 : 00	<b>Free papers 7 ACL 1</b>	<b>Moderators Y. Hoshino, Y. Kimura</b>
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- 1-5-1 Utility of anterior tibial subluxation (ATS) evaluation in straight standing lateral knee X-ray: Chiba LEAF study  
 ..... *Tsuyoshi Hamada, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.···S44
- 1-5-2 The effect of knee instability on meniscal healing after ACL reconstruction with meniscal repair: Second look arthroscopy ..... *Shunta Hanaki, et al.*, Dept. of Orthop. Surg., Nagoya City Univ. Hosp.···S44
- 1-5-3 The efficacy of periarticular cocktail injection compared with that of nerve blocks for pain control after anterior cruciate ligament reconstruction ..... *Naoki Takemoto, et al.*, Dept. of Orthop. Surg.,  
 Graduate School of Medical Sciences, Kanazawa Univ.···S45

- 1-5-4 Advanced age and postoperative poor extensor muscle strength are risk factors for worse KOOS-Sports and -QOL 1 year after ACLR  
 ..... *Yusuke Nakagawa, et al.*, Dept. of Orthop. Surg., Tokyo Medical and Dental Univ. Hosp.··S45
- 1-5-5 Return to sports and sports activity level after anterior cruciate ligament reconstruction  
 ..... *Akimasa Suzuki*, Dept. of Orthop. Surg., Tokyo Medical Univ.··S46
- 1-5-6 Relationship between joint effusion after ACL reconstruction and graft maturation  
 ..... *Naoya Kikuchi, et al.*, Dept. of Orthop. Surg., Univ. of Tsukuba··S46

<b>9 : 15 ~ 10 : 15</b>	<b>Free papers 8 Locomo 1</b>	<b>Moderators Y. Kanauchi, N. Taniguchi</b>
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- 1-5-7 Effects of locomotion training-based outpatient rehabilitation on paraspinal muscle size and fat infiltration in locomotive syndrome: 2-year prospective cohort study  
 ..... *Yoshiaki Hiranaka, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S47
- 1-5-8 Trends in prevalence of knee osteoarthritis over a 10-year period using the ROAD cohort data: Are knee joints getting younger?  
 ··· *Gaku Tanegashima, et al.*, Dept. of Orthop. Surg., The Univ. of Tokyo Hosp., The Univ. of Tokyo··S47
- 1-5-9 Relationship between locomotive syndrome and metabolic syndrome: From a nationwide cross-sectional locomotive syndrome study in Japan  
 ..... *Keiko Yamada, et al.*, Saitama Prefectural Univ. Dept. of Health and Welfare··S48
- 1-5-10 Analysis of GAP score and locomotive syndrome in healthy adults: Yakumo study  
 ·· *Yasuhiro Nagatani, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.··S48
- 1-5-11 Eye-opening one-leg standing and locomotion degree test  
 ..... *Takashi Nagai, et al.*, Dept. of Rehabilitation Medicine, Showa Univ.··S49
- 1-5-12 Does spinal sagittal imbalance relate to the development of dementia?: Locomotive syndrome and health outcomes in the Aizu cohort study (LOHAS)  
 ..... *Kazuyuki Watanabe, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ.··S49

<b>10 : 30 ~ 11 : 30</b>	<b>Free papers 9 Locomo 2</b>	<b>Moderators N. Yoshimura, K. Otani</b>
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- 1-5-13 As the abdominal wall relaxes, the ability to move is reduced  
 ..... *Takashi Nagai, et al.*, Dept. of Rehabilitation Medicine, Showa Univ.··S50
- 1-5-14 Clinical usefulness of a newly developed ultrasound device for estimating muscle mass in older adults: Cross-sectional analysis from FESTA study  
 ..... *Masaaki Onishi, et al.*, Dept. of Orthop. Surg., Hyogo College of Medicine··S50
- 1-5-15 Potential of a newly developed ultrasound device for estimating muscle mass in older adults: Cross-sectional analysis from FESTA study  
 ..... *Masaaki Onishi, et al.*, Dept. of Orthop. Surg., Hyogo College of Medicine··S51
- 1-5-16 Therapeutic effect of repetitive alternating motion gait rehabilitation for thoracic myelopathy patient with gait disturbance in the acute postoperative phase  
 ..... *Keita Takase, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.··S51
- 1-5-17 Fall prediction accuracy of gradient-boosting decision tree models using three-dimensional features of pelvic kinematics ..... *Satoshi Arita, et al.*, Dept. of Orthop. Surg., Wakayama Medical Univ.··S52
- 1-5-18 A longitudinal study to assess the importance of trunk muscle strength in maintaining sagittal spinal alignment and preventing back pain  
 ..... *Issei Senoo*, Dept. of Orthop. Surg., Asahikawa Medical Univ.··S52

<b>12 : 00 ~ 13 : 10</b>	<b>Luncheon seminar 4</b>	<b>Moderator A. Teramoto</b>
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- 1-5-LS4-1 Paradigm shift in orthopaedic surgery through advancements in diagnostic imaging technology: MRI ..... *Jun Sasahara, et al.*, Teikyo Univ. Institute of Sports Sciences & Medicine··S53

1-5-LS4-2 Paradigm shift in orthopaedic surgery through advancements in diagnostic imaging technology:  
 Ultrasound ..... *Hirokazu Okada*, Okada Orthop. Clinic...S53

14 : 40 ~ 15 : 40	<b>Afternoon seminar 1</b>	<b>Moderator S. Fukuoka</b>
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1-5-AS1 Results of cementless microplasty with Oxford Partial Knee  
 ..... *Andrew J. Price*, Univ. of Oxford, Oxford, UK...S54

15 : 55 ~ 16 : 55	<b>Free papers 10 Artificial intelligence</b>	<b>Moderators K. Oka, D. Takahashi</b>
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1-5-19 AI-assisted diagnostic system for osteoporosis using the lumbar spine X-ray images  
 ..... *Toru Moro, et al.*, Div. of Science for Joint Reconstruction,  
 Graduate School of Medicine, The Univ. of Tokyo...S55

1-5-20 Development of an artificial intelligence that automatically reads paper-based JOABPEQ using  
 deep learning  
 ..... *Takahito Fujimori, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ...S55

1-5-21 An automatic diagnosis system with deep learning algorithm for lumbar spinal canal stenosis using  
 lumbar spine X-rays ..... *Hisataka Suzuki, et al.*, Dept. of Orthop. Surg., Eniwa Hosp...S56

1-5-22 Development of a machine learning model for predicting AIS at hospital discharge in spinal cord  
 injury patients  
 ..... *Kyota Kitagawa, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S56

1-5-23 Viable tumour cell density after neoadjuvant chemotherapy assessed using deep learning reflects  
 the prognosis of osteosarcoma ..... *Kengo Kawaguchi, et al.*, Dept. of Orthop. Surg.,  
 Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ...S57

1-5-24 Exploration of predictive prognosis factors for cervical spine and cervical spinal cord injury using  
 artificial intelligence: JASA multicenter study  
 ..... *Sadayuki Ito, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,  
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S57

17 : 20 ~ 18 : 40	<b>Free papers (English) 1 Upper extremity</b>	<b>Moderators S. Imai, K. Naito</b>
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1-5-25 Reducing MRI dependency in local resource countries: Assessing the diagnostic accuracy of clinical  
 tests and radiographs for degenerate rotator cuff tears  
 ..... *Muhammad Muzzammil*, Dept. of Orthop. Services Hosp., Karachi, Pakistan...S58

1-5-26 Osteochondritis dissecans of the glenoid in adolescent baseball players: Computed tomography  
 quantitative analysis and recovery after nonoperative treatment  
 ..... *Won Kyu Jang, et al.*, Dept. of Orthop. Surg., Good Samsun Hosp., Busan, Korea...S58

1-5-27 How proximal ulnar shaft fracture could easily result in radial head dislocation?: A critical value  
 analysis for Monteggia fracture  
 ... *Kuan Yu Huang, et al.*, Dept. of Orthop., Kaohsiung Veterans General Hosp., Kaohsiung, Taiwan...S59

1-5-28 Safety profile, quality of life and patient satisfaction after orthopaedic implant removal  
 ..... *Rajiv Maharjan, et al.*, Dept. of Orthop., BPKIHS, Dharan, Nepal...S59

1-5-29 Canceled

1-5-30 Does fatty infiltration severity of the infraspinatus muscle affect clinical outcomes following superior  
 capsule reconstruction in irreparable rotator cuff tears?  
 ..... *Akihiko Hasegawa, et al.*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ...S60

1-5-31 Premature lateral compartment physeal closure in osteochondritis dissecans of the elbow  
 ..... *Hyung Lae Cho, et al.*, Dept. of Orthop. Surg., Good Samsun Hosp., Busan, Korea...S61

1-5-32 Surgical outcomes for Gartland type 3 supracondylar distal humerus fracture in children:  
 Comparison between flexion and extension type ..... *Ki Hyuk Sung, et al.*, Dept. of Orthop. Surg.,  
 Seoul National Univ. Bundang Hosp., Gyeonggi, Korea...S61

**1st Day May 23 Room 6**

**8 : 00 ~ 9 : 00 Instructional lecture 11 Moderator T. Yamashita**

- 1-6-EL11 Sarcopenia and geriatric chronic pain  
 .....*Yoshihito Sakai*, Dept. of Orthop. Surg., National Center for Geriatrics and Gerontology...S62

**9 : 15 ~ 10 : 15 Invited lecture 1 Moderator H. Nagashima**

- 1-6-IL1-1 Controversies in the classification and management of spinal trauma  
 .....*Alexander R. Vaccaro, et al.*, Dept. of Orthop. Surg.,  
 Rothman Orthop. Inst., Philadelphia, PA, USA...S63
- 1-6-IL1-2 Controversies on acute management of cervical spinal cord injury: Lingering debates on  
 early surgery  
 .....*Hiroataka Chikuda*, Dept. of Orthop. Surg., Gunma Univ. Graduate School of Medicine...S63

**10 : 30 ~ 11 : 30 Free papers 11 Hip fracture 1 Moderators T. Mae, T. Baba**

- 1-6-1 Early versus delayed weight bearing after internal fixation for femoral neck fracture in young patients:  
 A multicenter (TRON group) retrospective study  
 .....*Kanta Hasegawa, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,  
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S64
- 1-6-2 Retrospective multicenter study (TRON study) of hip fractures in the elderly: Analysis of mortality  
 rates and risk factors  
 .....*Teppei Moriura, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,  
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S64
- 1-6-3 Development of a prognostic scoring system for one-year mortality in elderly patients with  
 hip fractures .....*Yusei Katsuyama, et al.*, Dept. of Orthop., Graduate School of Medical Science,  
 Kyoto Prefectural Univ. of Medicine...S65
- 1-6-4 Effectiveness of early surgery for proximal femoral fracture to regain ambulatory ability  
 .....*Yuki Yasutake, et al.*, Dept. of Orthop. Surg., Sendai Medical Association Hosp...S65
- 1-6-5 The 'weekend effect' on proximal femur fracture outcomes  
 .....*Atsushi Arino, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine...S66
- 1-6-6 Comparative study of long versus short intramedullary nails for unstable intertrochanteric fractures:  
 A multicenter retrospective study by the TRON group  
 .....*Yasuhiko Takegami, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,  
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S66

**12 : 00 ~ 13 : 10 Luncheon seminar 5 Moderator M. Ikeuchi**

- 1-6-LS5 The present state and issue for the treatment of knee osteoarthritis based on the pathophysiology  
 of the disease: Part 1 .....*Muneaki Ishijima*, Dept. of Medicine for Orthop. and Motor Organ,  
 Juntendo Univ. Graduate School of Medicine...S67

**14 : 40 ~ 15 : 40 Invited lecture 2 Moderator K. Nishida**

- 1-6-IL2-1 Evolution of adult spine deformity surgery: Present landscape and emerging horizons  
 .....*Ferran Pellisé*, Barcelona Spine Institute, Hosp. Quiron, Barcelona, Spain...S68
- 1-6-IL2-2 Scoliosis surgery in developing countries: Challenges and solutions  
 .....*Mitsuru Yagi*, Dept. of Orthop. Surg., International Univ. of Health and Welfare...S68

15 : 55 ~ 16 : 55	<b>Invited lecture 3</b>	<b>Moderator S. Imagama</b>
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- 1-6-IL3-1 Selection of the approach and osteotomies in the treatment of severe spinal deformity  
 .....*Munish C. Gupta*, Dept. of Orthop. Surg., Washington Univ. School of Medicine,  
 St. Louis, MO, USA...S69
- 1-6-IL3-2 Surgical strategy for adult spinal deformity: How to prevent complications  
 .....*Hideyuki Arima, et al.*, Nx-CEC Hamamatsu Univ. School of Medicine...S69

17 : 20 ~ 18 : 40	<b>Free papers (English) 2 Spine &amp; pelvis</b>	<b>Moderators D. Sakai, N. Nagoshi</b>
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- 1-6-7 Ultrasonic imaging in endoscopic spinal surgery: A novel intraoperative imaging technology with automatic tissue recognition  
 .....*Chang Jiang, et al.*, Dept. of Orthop., Zhongshan Hosp. Fudan Univ., Shanghai, China...S70
- 1-6-8 Single stage all posterior approach total sacrectomy and Hemi-TRAM flap decreased hospital stay and lower rate of wound complication  
 .....*Permsak Paholpak*, Dept. of Orthop. Surg., MDKKU, KKU, Khon Kaen, Thailand...S70
- 1-6-9 Outcome comparison between structural allograft and polyetheretherketone cage in anterior cervical discectomy and fusion: A meta-analysis  
 .....*Bao T. Nguyen Tu, et al.*, The International Ph.D. Program in Medicine,  
 College of Medicine, Taipei Medical Univ., Taipei, Taiwan...S71
- 1-6-10 Clinical outcomes at 2-year of full endoscopic lumbar discectomy plus annulo-nucleoplasty for lumbar disc herniation: Randomized controlled trial  
 .....*Saran Pairuchvej, et al.*, Queen Savang Vadhana Memorial Hosp., Chonburi, Thailand...S71
- 1-6-11 Developing a multimodal artificial intelligence platform to identify progressive adolescent idiopathic scoliosis curvatures towards personalized medicine  
 .....*Graham Shea, et al.*, Dept. of Orthop. Traumatol., Univ. of Hong Kong, Hong Kong...S72
- 1-6-12 Comparative study between parathyroid hormone and denosumab on the prevention of proximal junctional kyphosis: Prospective, randomized controlled trial  
 .....*Ho-Joong Kim, et al.*, Dept. of Orthop. Surg., SNU Bundang Hosp., SNUCM, Seoul, Korea...S72
- 1-6-13 The association between balance ability and incidence of proximal junctional kyphosis following adult spine deformity surgery  
 .....*Ho-Joong Kim, et al.*, Dept. of Orthop. Surg., SNU Bundang Hosp., SNUCM, Seoul, Korea...S73
- 1-6-14 The relationship among patient reported outcomes, radiological spinopelvic parameters and gait analysis at 1 year after adult spinal deformity surgery  
 .....*Ho-Joong Kim, et al.*, Dept. of Orthop. Surg., SNU Bundang Hosp., SNUCM, Seoul, Korea...S73

<b>1st Day May 23 Room 7</b>
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8 : 00 ~ 9 : 00	<b>Free papers 12 Basic research 1</b>	<b>Moderators K. Nakata, H. Kaneko</b>
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- 1-7-1 Effect of PIEZO1 deletion on tendons  
 .....*Ryo Nakamichi, et al.*, Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction,  
 Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ...S74
- 1-7-2 Cartilage tissues regulate systemic bone and phosphorus metabolism via ectonucleotide pyrophosphatase/phosphodiesterase 1  
 .....*Takahiro Arima, et al.*, Dept. of Orthop. Surg., Faculty of Life Sciences, Kumamoto Univ...S74
- 1-7-3 Effect of carbonyl derivatives on osteoblast function  
 .....*Tetsuya Seto, et al.*, Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine...S75

- 1-7-4 Elucidation of the pathogenesis of synovial fibroblast-derived humoral factors in inflammatory arthritis associated with anti-PD-L1 antibody treatment  
 ..... *Hitoshi Toyoda, et al.*, Dept. of Orthop. Surg., Showa Univ...S75
- 1-7-5 Effectiveness in promoting meniscus regeneration of granulocyte colony-stimulating factor in a ratmeniscal defect model  
 ..... *Ken Iida, et al.*, Dept. of Orthop. Surg., Osaka Metropolitan Univ. Graduate School of Medicine...S76
- 1-7-6 The transcription factor PRRX1 promotes malignant transformation in human malignant peripheral nerve sheath tumors through interaction with TOP2A  
 ... *Shota Takihira, et al.*, Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ...S76

9 : 15 ~ 10 : 15	<b>Free papers 13 Basic research 2</b>	<b>Moderators K. Honoki, H. Sudo</b>
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- 1-7-7 Clinical outcomes and changes in *de novo* donor specific HLA antibody titers three years after polydactyly-derived allogeneic chondrocyte cell-sheet transplantation  
 ..... *Miyu Tamaki, et al.*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ...S77
- 1-7-8 Bioactive surface increases bone-bonding strength by promoting bone formation and inhibiting bone resorption ..... *Yusuke Takaoka, et al.*, Dept. of Orthop. Surg., Tenri Hosp...S77
- 1-7-9 Bicortical pedicle screws in the cephalad trajectory is the best option in osteoporotic lumbar vertebrae: A finite element analysis  
 ..... *Akimasa Murata, et al.*, Dept. of Orthop. Surg., Wakayama Medical Univ...S78
- 1-7-10 Pain behavioral and radiological investigations in an animal model of rapidly destructive coxarthropathy  
 ..... *Yasuhiro Furihata, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S78
- 1-7-11 Blue LED light induces ROS-dependent apoptosis in bone and soft tissue sarcomas  
 ..... *Shinji Kawaguchi, et al.*, Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School...S79
- 1-7-12 Investigation of the mechanism of osteoclast differentiation inhibition using osteoclast-specific SIK3-deficient mice  
 ..... *Katsuhiko Kamei, et al.*, Dept. of Orthop. Surg., Faculty of Medicine, Univ. of Toyama...S79

10 : 30 ~ 11 : 30	<b>Instructional lecture 12</b>	<b>Moderator T. Ozaki</b>
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- 1-7-EL12 Current status and future direction of genomic medicine in musculoskeletal oncology  
 ..... *Hiroshi Kobayashi*, Dept. of Orthop. Surg., The Univ. of Tokyo Hosp., The Univ. of Tokyo...S80

12 : 00 ~ 13 : 10	<b>Luncheon seminar 6</b>	<b>Moderator T. Saito</b>
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- 1-7-LS6-1 Haemophilic arthropathy and surgical management  
 ..... *Kumiko Ono*, Dept. of Joint Surg., Research Hosp., The Institute of Medical Science, The Univ. of Tokyo...S81
- 1-7-LS6-2 Management of haemophilic arthropathy at Nagoya University Hospital  
 ..... *Kenya Terabe*, Dept. of Orthop. Surg., Nagoya Univ. Hosp...S81

14 : 40 ~ 15 : 40	<b>Free papers 14 Knee: OA 2</b>	<b>Moderators E. Tsuda, T. Matsushita</b>
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- 1-7-13 Multiple intra-articular injections with adipose-derived stem cells for knee osteoarthritis cause severe arthritis with anti-histone H2B antibody production  
 ..... *Yuji Hosono, et al.*, Dept. of Aller. & Rheum., Iwate Medical Univ...S82
- 1-7-14 A 5-year longitudinal epidemiological study about risk factors for development of knee osteoarthritis among no obese women  
 ..... *Eitaro Sato, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S82

- 1-7-15 Width of medial posterior meniscus was decreased after 5 years in elderlies with primary-stage knee osteoarthritis: The Bunkyo health study  
 ..... *Takuya Yamamura, et al.*, Dept. of Orthop., Juntendo Univ.··S83
- 1-7-16 Association between subchondral bone changes on a knee radiography and medial meniscus extrusion in knee osteoarthritis: The Bunkyo health study  
 ..... *Haruka Kaneko, et al.*, Dept. of Orthop., Juntendo Univ.··S83
- 1-7-17 Distribution of coronal plane alignment of the knee classification in patients with spontaneous knee osteonecrosis ..... *Hiroshi Koyama, et al.*, Dept. of Orthop. Surg., Jyuzen Memorial Hosp.··S84
- 1-7-18 Medial plica increases risk for progression of K/L grade in middle-aged populations with K/L grade 0 ..... *Shinnosuke Hada, et al.*, Dept. of Orthop., Juntendo Univ.··S84

15 : 55 ~ 16 : 55	<b>Free papers 15 Knee: OA 3</b>	<b>Moderators G. Omori, M. Deie</b>
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- 1-7-19 Improved predictive performance of knee osteoarthritis development by using the risk factor based polygenic score  
 ..... *Yugo Morita, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.··S85
- 1-7-20 Standard values of lower extremity coronal alignment in the general population of the region  
 ..... *Ryoto Kura, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine··S85
- 1-7-21 Association of knee osteoarthritis progression with sensory nerve density in synovium  
 ..... *Koji Aso, et al.*, Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ.··S86
- 1-7-22 Distribution of coronal plane alignment of the knee classification in osteoarthritis patients in Japan and effect of lateral femoral bowing  
 ..... *Kenichi Goshima, et al.*, Dept. of Orthop. Surg., Kanazawa Munehiro Hosp.··S86
- 1-7-23 A machine-learning based knee acceleration parameter correlates with external knee adduction moment during gait ..... *Ayako Akiba, et al.*, Dept. of Orthop. Surg., Keio Univ.··S87
- 1-7-24 Effects of platelet-rich plasma (PRP) therapy and cytokine levels in (PRP) for osteoarthritis of the knee ..... *Nanako Yamamoto, et al.*, Dept. of Orthop., Juntendo Univ.··S87

17 : 20 ~ 18 : 40	<b>Symposium 5</b>	<b>Moderators M. Matsubara, H. Ito</b>
<b>What we can do to improve long-term outcomes of total joint arthroplasty in the super-aging society</b>		

- 1-7-S5-1 Osteoporosis evaluation in patients undergoing total joint arthroplasty  
 ..... *Akihiro Sudo*, Dept. of Musculoskeletal Surg.,  
 Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine··S88
- 1-7-S5-2 We should understand age-related changes in bone metabolism and bone quality to improve long-term outcomes of joint prostheses  
 ..... *Mitsuru Saito*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine··S88
- 1-7-S5-3 Periprosthetic bone mineral density and osteoporosis after total knee arthroplasty  
 ..... *Yukihide Minoda, et al.*, Dept. of Orthop. Surg.,  
 Osaka Metropolitan Univ. Graduate School of Medicine··S89
- 1-7-S5-4 Drug intervention for the prevention of BMD loss after THA: A network meta-analysis  
 ..... *Naomi Kobayashi, et al.*, Dept. of Orthop. Surg., Yokohama City Univ. Medical Center··S89
- 1-7-S5-5 Periprosthetic fracture and re-surgery after UKA  
 ..... *Tasuku Mashiba, et al.*, Dept. of Orthop. Surg., Kagawa Saiseikai Hosp.··S90
- 1-7-S5-6 Fracture risk after total hip arthroplasty and precautions for the revision surgery  
 ..... *Taro Mawatari*, Dept. of Orthop. Surg., KKR Hamanomachi Hosp.··S90

**1st Day May 23 Room 8**

**8 : 00 ~ 9 : 00    Invited lecture 4    Moderator A. Ogose**

- 1-8-ILA-1    What are the long-term surgical outcomes of compressive endoprosthetic osseointegration of the femur with a minimum 10-year follow-up period?  
 .....*R.L. Randall, et al.*, Univ. of California, Davis, Dept. of Orthop. Surg., Sacramento, CA, USA...S91
- 1-8-ILA-2    Surgical tips and pitfalls for modular endoprosthesis reconstruction  
 .....*Satoshi Tsukushi*, Dept. of Orthop. Surg., Aichi Cancer Center...S91

**9 : 15 ~ 10 : 15    Free papers 16    Tumor: Clinical research 1    Moderators S. Tsukushi, Y. Tome**

- 1-8-1    A study of the efficacy of adjuvant chemotherapy for middle-aged and elderly patients with high-grade malignant bone tumors .....*Akihito Nagano, et al.*, Dept. of Orthop. Surg., Div. of Disease Control, Research field of Medical Sciences, Graduate School of Medicine, Gifu Univ...S92
- 1-8-2    Clinical features of bone and soft tissue sarcoma with early metastasis after wide resection of the primary tumor .....*Akane Ariga, et al.*, Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ...S92
- 1-8-3    Activities to improve ADL/QOL in patients with primary musculoskeletal tumors: Survey of neurofibroma using data from the JOA tumor registry  
 .....*Yoshihiro Nishida, et al.*, Dept. of Rehabilitation, Nagoya Univ. Hosp...S93
- 1-8-4    Rare cancers, sarcomas, and sarcomas occurring in the orthopaedic field from in-hospital cancer registries: Retrospective analysis using rarecanceret list  
 .....*Tomohisa Sakai, et al.*, Rare Cancer Center, Nagoya Univ. Hosp...S93
- 1-8-5    Survival impact of primary tumor resection in patients with primary malignant bone tumor of the extremities with distant metastasis .....*Ryuichi Fukuda, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S94
- 1-8-6    Incidence and risk factors for wound complications after internal hemipelvectomy:  
 International multicenter study  
 .....*Koichi Ogura, et al.*, Dept. of Musculoskeletal Oncology and Rehabilitation, National Cancer Center Hosp...S94

**10 : 30 ~ 11 : 30    Free papers 17    Infection    Moderators S. Abe, K. Tsuihiji**

- 1-8-7    Examination of surgical field contamination in various artificial joint replacements  
 .....*Akihito Oya, et al.*, Dept. of Orthop. Surg., Keio Univ...S95
- 1-8-8    Identification of causative organisms using nanopore sequencer for periprosthetic joint infection  
 .....*Koki Abe, et al.*, Dept. of Orthop. Surg., Yokohama City Univ. Hosp...S95
- 1-8-9    Bead disruption DNA extraction improves accuracy of genetic diagnosis for periprosthetic hip infection .....*Yuta Hieda, et al.*, Dept. of Orthop. Surg., Yokohama City Univ. Hosp...S96
- 1-8-10    Effect of intrawound vancomycin powder on surgical site infection prevention in major orthopaedic surgery: Systematic review and meta-analysis  
 .....*Natsumi Saka, et al.*, Dept. of Orthop. Surg., Teikyo Univ...S96
- 1-8-11    Final report of a prospective clinical study using iodine-coated implants  
 .....*Toshiharu Shirai, et al.*, Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine...S97
- 1-8-12    What is the optimal protocol for intraoperative irrigation with povidone-iodine solution to prevent periprosthetic infection?: *In vitro* study .....*Tomoyuki Kataoka, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ...S97

12 : 00 ~ 13 : 10	<b>Luncheon seminar 7</b>	<b>Moderator M. Hojo</b>
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1-8-LS7 Outcome of intra-articular injection of adipose derived stem cell (ASC) for knee osteoarthritis  
 ..... *Shingo Yasuda*, Osaka Umeda Cell Clinic...S98

14 : 40 ~ 15 : 40	<b>Instructional lecture 13</b>	<b>Moderator H. Hiraga</b>
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1-8-EL13 Diagnosis and treatment of osteosarcoma  
 ..... *Robert Nakayama*, Dept. of Orthop. Surg., Keio Univ...S98

15 : 55 ~ 16 : 55	<b>Free papers 18 Tumor: Clinical research 2</b>	<b>Moderators T. Torigoe, T. Shirai</b>
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- 1-8-13 Pathology of atypical femoral fracture and beak sign in the use of denosumab for bone metastasis:  
 A single-center study ..... *Kazuya Kaneda, et al.*, Dept. of Orthop. Surg., Tokyo Medical Center...S99
- 1-8-14 How does intraoperative leakage of joint fluid in extra-articular resection of osteosarcoma affect  
 oncological outcomes? ..... *Yuki Funauichi, et al.*, Dept. of Orthop. and Spinal Surg.,  
 Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ...S99
- 1-8-15 Prognostic impact of particle therapy in patients with Ewing sarcoma family of tumors of the trunk  
 ..... *Yoichi Kaneuchi, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ...S100
- 1-8-16 Development and validation of a nomogram to predict surgical-site infection after soft-tissue  
 sarcoma resection ..... *Shinji Miwa, et al.*, Dept. of Orthop. Surg.,  
 Graduate School of Medical Sciences, Kanazawa Univ...S100
- 1-8-17 Efficacy of lymph node dissection in patients with clear cell sarcoma and epithelioid sarcoma  
 ..... *Toshiyuki Takemori, et al.*, Dept. of Musculoskeletal Oncology and Rehabilitation,  
 National Cancer Center Hosp...S101
- 1-8-18 Grouping myxofibrosarcoma by direction of tumor infiltration  
 ..... *Yu Toda, et al.*, Dept. of Musculoskeletal Oncology and Rehabilitation,  
 National Cancer Center Hosp...S101

17 : 20 ~ 18 : 20	<b>Invited lecture 5</b>	<b>Moderator A. Kawai</b>
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- 1-8-IL5-1 Long term functional outcome and quality of life after limb salvage of patients with malignant  
 bone tumors ..... *Reinhard Windhager*, Dept. of Orthop. & Traum. Surg. MUW, Vienna, Austria...S102
- 1-8-IL5-2 Sports activities in pediatric, adolescent, and young adult survivors of bone sarcoma  
 ..... *Shintaro Iwata, et al.*, Dept. of Musculoskeletal Oncology and Rehabilitation,  
 National Cancer Center Hosp...S102

<b>1st Day May 23 Room 9</b>
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8 : 00 ~ 9 : 00	<b>Free papers 19</b>	<b>Moderators K. Narishima, A. Sudo</b>
<b>Osteoporosis: Radius &amp; hip joint</b>		

- 1-9-1 Relationship between CT values of the capitata and bone mineral density at the time of injury of  
 distal radius fracture ..... *Yoshio Kaji, et al.*, Dept. of Orthop. Surg., Kagawa Univ...S103
- 1-9-2 Lower SMI is a risk factor for dysphagia in patients with osteoporotic hip fracture  
 ..... *Kaoru Suseki, et al.*, Dept. of Orthop. Surg., Yokohama General Hosp...S103
- 1-9-3 Investigation of fracture liaison service effect for start of osteoporosis treatment for distal  
 radius fracture ..... *Yukinori Tsukuda, et al.*, Dept. of Orthop. Surg., Otaru General Hosp...S104
- 1-9-4 Incidence of hip fracture in the elderly in Kyoto City and its association with exercise habits:  
 A prospective cohort study ..... *Hiroko Ikeuchi, et al.*, Dept. of Preventive Services,  
 Graduate School of Med., School of Public Health, Kyoto Univ...S104

- 1-9-5 Prevalence of severe osteoporosis in patients with proximal femoral fractures: Analysis of 322 cases in 3 years ..... *Tsuyoshi Asano, et al.*, Dept. of Orthop. Surg., KKR Sapporo Medical Center...S105
- 1-9-6 Surgical treatment for tumor induced osteomalacia (TIO) ..... *Yoji Shido, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine...S105

9 : 15 ~ 10 : 15	<b>Free papers 20</b>	<b>Foot &amp; ankle</b>	<b>Moderators</b>	<b>T. Yasuda, S. Yamaguchi</b>
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- 1-9-7 Effects of the proximal first metatarsal osteotomy for hallux valgus on kinematic characteristics of the first tarsometatarsal joint during gait ..... *Yasunari Ikuta, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ....S106
- 1-9-8 Proximal supination osteotomy for hallux valgus: Comparison of clinical and radiological outcomes for severe and super-severe deformities ..... *Kei Tanaka, et al.*, Dept. of Orthop. Surg., Rakusai Shimizu Hosp....S106
- 1-9-9 Considerations for hallux valgus surgery in patients over 75 years old ..... *Kazuya Ikoma, et al.*, Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine...S107
- 1-9-10 Results of insole treatment for moderate and severe hallux valgus: Effects over time and comparison with surgical treatment ..... *Hideyuki Maruki, et al.*, Dept. of Orthop. Surg., Saitama Medical Univ....S107
- 1-9-11 Clinical and radiological outcomes of distal tibial rotational osteotomy without bone graft for varus ankle osteoarthritis and instability ..... *Yasutaka Murahashi, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ....S108
- 1-9-12 Biomechanical analysis of load sharing in deltoid ligament during anterior and posterior loading: Using a 6 degrees-of-freedom robotic system ..... *Katsunori Takahashi, et al.*, Dept. of Orthop. Surg., Saiseikai Otaru Hosp....S108

10 : 30 ~ 11 : 30	<b>Invited lecture 6</b>	<b>Moderator</b>	<b>A. Nakamae</b>
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- 1-9-IL6-1 Understanding and preventing ACL injuries ..... *Timothy E. Hewett*, Dept. of Orthop. Surg., Marshall Univ., Huntington, WV, USA...S109
- 1-9-IL6-2 Biomechanics of anterior cruciate ligament-deficient and -reconstructed knees: Present & future ..... *Kengo Harato, et al.*, Dept. of Orthop. Surg., Keio Univ....S109

12 : 00 ~ 13 : 10	<b>Luncheon seminar 8</b>	<b>Moderator</b>	<b>M. Ishikawa</b>
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- 1-9-LS8 Potential of hyaluronic acid for the therapy of knee osteoarthritis ..... *Shuhei Otsuki*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ....S110

14 : 40 ~ 15 : 40	<b>Free papers 21</b>	<b>Nerve</b>	<b>Moderators</b>	<b>R. Kakinoki, N. Kodera</b>
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- 1-9-13 The study of psychogenic paralysis of upper limbs referred to our hospital as brachial plexus injury ..... *Keika Nishi, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine...S111
- 1-9-14 Efficacy of the seven-color TcMsEP grading system ..... *Yasushi Murakami, et al.*, Orthop. and Microscopic Spine and Spinal Cord Surg. Center, Hiroshima Asa City Hosp....S111
- 1-9-15 Neural compatibility in distal upper extremity nerve transfers: Insights from cadaveric autopsy ..... *Akira Kodama, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ....S112
- 1-9-16 Noninvasive evaluation of neurogenic thoracic outlet syndrome by magnetoneurography ..... *Yuta Tanaka, et al.*, Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ....S112

- 1-9-17 The making decision of the surgical procedure for patients in thoracic outlet syndrome using brachial plexography  
 ..... *Yukiko Morimoto, et al.*, Dept. of Orthop. Surg., Yodogawa Christian Hosp. ...S113
- 1-9-18 Postoperative outcome of endoscopic assisted first rib resection for thoracic outlet syndrome  
 ..... *Kozo Furushima, et al.*, Keiyu Orthop. Hosp. ...S113

**15 : 55 ~ 16 : 55 Instructional lecture 14 Moderator T. Akiyama**

- 1-9-EL14 Current concept of osteotomies around the knee  
 ..... *Ken Okazaki*, Dept. of Orthop. Surg., Tokyo Women's Medical Univ. ...S114

**17 : 20 ~ 18 : 20 Invited lecture 7 Moderator E. Kondo**

- 1-9-IL7-1 Current trend in anterior cruciate ligament (ACL) surgery: Still no consensus on the best treatment approach  
 ..... *Stefano Zaffagnini*, II Clinic - Orthop. and Traumatology of Istituto Ortopedico Rizzoli, Bologna, Italy ...S115
- 1-9-IL7-2 Recent advances, unresolved issues, and the future of ACL reconstruction  
 ..... *Shuji Taketomi, et al.*, Orthop. Surg., Sensory and Motor System Medicine, Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo ...S115

**1st Day May 23 Room 10**

**8 : 00 ~ 9 : 00 Free papers 22 DDH: Pelvic osteotomy Moderators S. Nakamura, N. Shima**

- 1-10-1 Long-term outcome 30 years after rotational acetabular osteotomy  
 ..... *Makoto Fukui, et al.*, Dept. of Orthop. Surg., Kanazawa Medical Univ. ...S116
- 1-10-2 Biomechanics-based target zone for periacetabular osteotomy in patients with hip dysplasia  
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 ..... *Masamizu Ohyama, et al.*, Dept. of Orthop. Surg., Japanese Red Cross Sendai Hosp. ...S117
- 1-10-4 Relationship between dynamic hip instability and acetabular coverage: A study using dynamic sagittal CT imaging  
 ..... *Yasushi Yoshikawa, et al.*, Dept. of Orthop. Surg., Showa Univ. ...S117
- 1-10-5 Investigation of osteotomy angle, width, and length at the osteotomy site in the posterior column of curved periacetabular osteotomy  
 ..... *Kazuki Orita, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S118
- 1-10-6 Predictors of osteoarthritis progression after curved periacetabular osteotomy for hip dysplasia  
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- 1-10-7 Mid-term results of regenerative therapy using recombinant human FGF-2 for osteonecrosis of femoral head  
 ..... *Elena Kaneyama, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S119
- 1-10-8 Morphological assessment of osteonecrosis of the femoral head with collapse cessation  
 ..... *Yusuke Osawa, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S119

- 1-10-9 Evaluation of necrotic sizes in the progression of collapse in type B idiopathic osteonecrosis of the femoral head  
 .....*Hiroaki Ido, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.···S120
- 1-10-10 Is the location of anterior necrotic boundary associated with collapse progression in type B/C1 osteonecrosis of the femoral head? .....*Takeshi Utsunomiya, et al.*, Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.···S120
- 1-10-11 Relationship between the osteotomy angle in coronal plane and the intact ratio in curved varus osteotomy for ONFH .....*Shinichiro Sakai, et al.*, Dept. of Bone and Joint Surg., Ehime Univ. Graduate School of Medicine···S121
- 1-10-12 Association between intra-articular pathology and post-operative clinical outcomes in ONFH patients .....*Takeshi Shoji, et al.*, Dept. of Artificial Joints and Biomaterials, Graduate School of Biomedical and Health Sciences, Hiroshima Univ.···S121

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- 1-10-EL15-1 Total hip arthroplasty from the perspective of pain: Why total hip arthroplasty provides better pain relief than total knee arthroplasty  
 .....*Ryoichi Izumida*, Keiyo Joint Reconstruction Center Edogawa Hosp.···S122
- 1-10-EL15-2 Truths of myogelosis: Muscle hypertonicity and pain hypersensitivity caused by cutaneous perception and generation of static electricity and magnetism  
 .....*Shoichi Kokubun*, Dept. of Orthop. Surg., Sendai Nishitaga Hosp.···S122

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- 1-10-LS9-1 From our experience with 5,000 THA cases: CT based robotics makes the best use of the surgeon's skills  
 .....*Shigeo Aota*, Hoshi General Hosp. Foundation, Hip Joint Reconstruction Center···S123
- 1-10-LS9-2 Cementless THA brush-up course: Pitfalls and troubleshooting  
 .....*Kotaro Nihei, et al.*, Dept. of Orthop. Surg., Saitama Co-operative Hosp.···S123

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- 1-10-IL8-1 A 10-year FU analysis of contemporary dual-mobility cups  
 .....*Michel P. Bonnin*, Centre Orthopédique Santy, Lyon, France···S124
- 1-10-IL8-2 An overview of SOFCOT (Société Française de Chirurgie Orthopédique et Traumatologique): History and key innovations including hip surgery  
 .....*Kazuo Kaneko*, Dept. of Orthop., Juntendo Univ.···S124

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- 1-10-IL9-1 Pathogenesis and novel treatment of idiopathic osteonecrosis of the femoral head  
 .....*Pil Whan Yoon*, Dept. of Orthop. Surg., Seoul Now Hosp., Gyeonggi, Korea···S125
- 1-10-IL9-2 A novel treatment of idiopathic osteonecrosis of the femoral head  
 .....*Haruhiko Akiyama*, Dept. of Orthop. Surg., Div. of Disease Control, Research Field of Medical Sciences, Graduate School of Medicine, Gifu Univ.···S125

<b>17 : 20 ~ 18 : 40</b>	<b>Free papers (English) 3 Lower extremity</b>	<b>Moderators T. Matsumoto, A. Fujie</b>
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- 1-10-13 A systemic review and meta-analysis of pararectus versus ilioinguinal approach for the management of acetabular fractures  
 .....*Rajesh K. Rajnish, et al.*, Dept. of Orthop. AIIMS Jodhpur, Rajasthan, India···S126

- 1-10-14 Incidence of ceramic-on-ceramic bearing fractures in total hip arthroplasty from two tertiary referral centers  
 .....*Hong Seok Kim, et al.*, Dept. of Orthop. Surg., Seoul National Univ. Hosp., Seoul, Korea...S126
- 1-10-15 Beta-lactam antibiotic allergy is a newly-identified treatable risk factor for PJI following TKA: 28-year retrospective study of 4800 cases  
 .....*Man Hong Steve Cheung, et al.*, Dept. of O&T, The Univ. of Hong Kong, Hong Kong...S127
- 1-10-16 Canceled
- 1-10-17 Age at periacetabular osteotomy does not reduce the likelihood of excellent 20-year patient-reported outcomes with their native hips .....*Satoshi Yamate, et al.*, Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ...S128
- 1-10-18 Outcomes of new horizontal versus Akin osteotomy of the proximal phalanx for hallux valgus .....*Itaru Morohashi, et al.*, Juntendo Shizuoka Hosp...S128
- 1-10-19 Kinematic alignment Oxford partial knee arthroplasty with cementless fixation is safe .....*Takafumi Hiranaka, et al.*, Dept. of Orthop. Surg., Takatsuki General Hosp...S129
- 1-10-20 Clinical correlates of nutritional status and Ponseti technique success in clubfoot patients .....*Muhammad Muzammil*, Dept. of Orthop. Services Hosp., Karachi, Pakistan...S129

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**8 : 00 ~ 9 : 00 Free papers 24 Spinal deformity 1 Moderators H. Murakami, S. Inami**

- 1-11-1 Self-image and related factors in Lenke type 5C patients: AIS vs. AdIS  
 .....*Shuhei Maki, et al.*, Scoliosis Center, Dept. of Orthop. Surg., Osaka City General Hosp...S130
- 1-11-2 The upright posture of humans requires the coordination of the spine, pelvis and hip joints  
 .....*Ryo Fujita, et al.*, Dept. of Orthop. Surg., Sendai Medical Center...S130
- 1-11-3 Relationship between curve progression of adolescent idiopathic scoliosis and the onset of menarche: A single-center retrospective study of 1,090 patients  
 .....*Yosuke Ogata, et al.*, Dept. of Orthop. Surg., Seirei Sakura Citizen Hosp...S131
- 1-11-4 Comparing the accuracy of pose estimation methods and radiographic parameters in adolescent idiopathic scoliosis patients  
 ...*Go Goto, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Science, Univ. of Yamanashi...S131
- 1-11-5 RASopathies and spinal deformities for screening of scoliosis  
 .....*Masayoshi Machida, et al.*, Dept. of Orthop. Surg., Saitama Children's Medical Center...S132
- 1-11-6 Optimal choice of lower instrumented vertebra can prevent distal junctional kyphosis after posterior fusion for thoracic adolescent idiopathic scoliosis  
 .....*Yusuke Hori, et al.*, Dept. of Orthop. Surg., Osaka City General Hosp...S132

**9 : 15 ~ 10 : 15 Free papers 25 Spinal deformity 2 Moderators K. Harimaya, H. Nojiri**

- 1-11-7 Impact of fatty degeneration of paravertebral muscle on surgical treatment of adult spinal deformity: Multicenter study of NSG  
 ...*Yoshinori Morita, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S133
- 1-11-8 Development of patient-reported outcome for adult spinal deformity  
 .....*Takahito Fujimori, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ...S133
- 1-11-9 Survival analysis of PJK with fracture after adult spinal deformity surgery incorporating the FRAX score: Validity of fracture risk  
 .....*Junya Katayanagi*, Dept. of Orthop. Surg., Dokkyo Medical Univ. Saitama Medical Center...S134
- 1-11-10 Hip osteoarthritis after spinal fusion surgery: 5 years follow-up study  
 .....*Takuhei Kozaki, et al.*, Dept. of Orthop. Surg., Saiseikai Wakayama Hosp...S134

- 1-11-11 Does undercorrection of sagittal alignment have inferior clinical outcomes in corrective surgery for adult spinal deformity in the elderly?  
 ..... *Masanari Takami, et al.*, Dept. of Orthop. Surg., Wakayama Medical Univ. ....S135
- 1-11-12 Longitudinal changes in outcomes of Tc-MEP monitoring during adult spinal deformity surgery  
 ..... *Hiroki Ushirozako, et al.*, Dept. of Orthop. Surg., Morimachi Public Hosp. ....S135

**10 : 30 ~ 11 : 30 Instructional lecture 16 Moderator M. Doita**

- 1-11-EL16 Treatment strategy for osteoporotic vertebral fracture  
 ..... *Hiroaki Nakamura*, Dept. of Orthop. Surg.,  
 Osaka Metropolitan Univ. Graduate School of Medicine ....S136

**12 : 00 ~ 13 : 10 Luncheon seminar 10 Moderator S. Tanaka**

- 1-11-LS10-1 The role of the orthopaedic surgeon in the treatment of psoriatic arthritis  
 .. *Shigeyoshi Tsuji*, Dept. of Orthop., Rheumatology and Psoriasis Center, Nippon Life Hosp. ....S137
- 1-11-LS10-2 Tips and pitfalls of the treatment of axial spondyloarthritis  
 ..... *Yuho Kadono*, Dept. of Orthop. Surg., Saitama Medical Univ. ....S137

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 Pediatric Orthopaedics: General**

- 1-11-13 Tibial lengthening for children with achondroplasia brings their gait kinetics closer to normalcy  
 ..... *Yasunari Kamiya, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and  
 Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ....S138
- 1-11-14 Influence of how to hold infant and head turn preference on the development of the hip joint  
 ..... *Shinpei Enokida, et al.*, Dept. of Orthop. Surg., Tottori Univ. ....S138
- 1-11-15 Investigation of thickness of the osteotomy site during Salter innominate osteotomy for pediatric developmental dysplasia of the hip  
 ..... *Tetsuhiro Hagino, et al.*, Dept. of Orthop. Surg., Yamanashi Prefectural Central Hosp. ....S139
- 1-11-16 Outcomes of intertrochanteric femoral osteotomies for stable type slipped capital femoral epiphysis  
 .... *Erica Amemiya, et al.*, Dept. of Orthop. Surg., The Jikei Univ. Daisan Hosp. ....S139
- 1-11-17 Analysis of the risk of developing hemophilic arthropathy in patients with severe hemophilia A  
 ..... *Hitoshi Suzuki, et al.*, Dept. of Orthop. Surg.,  
 School of Medicine, Univ. of Occupational and Environmental Health ....S140
- 1-11-18 Is the leg bowing of toddlers determined by nutritional status or genetic predisposition?: From Baby LAB study  
 ..... *Yuko Sakamoto, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Nerima Hosp. ....S140

**15 : 55 ~ 16 : 55 Free papers 27 Hip fracture 2 Moderators K. Ueshima, M. Ito**

- 1-11-19 Complications and clinical outcomes in COVID-19 patients with hip fractures: A case series  
 ..... *Shunsuke Takahara, et al.*, Dept. of Orthop. Surg., Hyogo Pref. Kakogawa Medical Center ....S141
- 1-11-20 Nutritional status by GNRI is an independent predictive indicator for aspiration pneumoniae after surgery in patients with proximal femoral fracture  
 ..... *Daigo Morita, et al.*, Dept. of Orthop. Surg., Hamamatsu Medical Center ....S141
- 1-11-21 Longitudinal follow-up of precursory signs for atypical femoral fractures in bone metastatic patients with bone-modifying agents  
 ..... *Takumi Kaku, et al.*, Dept. of Orthop. and Spinal Surg.,  
 Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ. ....S142
- 1-11-22 Treatment outcomes between atypical femoral fractures with and without bone-modifying agents for cancer bone metastasis  
 ..... *Tomoaki Fukui, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ....S142
- 1-11-23 The patients with a proximal femoral fracture require the multidisciplinary approach in the perioperative period  
 ..... *Kosuke Tsuda, et al.*, Dept. of Orthop. Surg., Sumitomo Hosp. ....S143

1-11-24 Prognostic nutritional index (PNI) is predictor of postoperative walking ability after hip fracture  
 ..... *Suguru Kuwata*, Dept. of Orthop. Surg., Hamada Medical Center...S143

**17 : 20 ~ 18 : 40 Symposium 6 Moderators K. Kinugasa, K. Ogawa**  
**Approaches to lower limb surgery considering angiosomes: Focus on fractures**

- 1-11-S6-1 What is angiosome? ..... *Akeo Waseda*, Waseda Orthop. Clinic...S144
- 1-11-S6-2 Surgical approaches to trauma around the knee joint considering the angiosome  
 ..... *Masanori Yorimitsu, et al.*, Dept. of Musculoskeletal Traumatology, Faculty of Medicine,  
 Dentistry, and Pharmaceutical Sciences, Okayama Univ...S144
- 1-11-S6-3 Anteromedial approach to tibial pilon fractures with consideration for the angiosome and the  
 perforator of anterior tibial artery  
 ..... *Satoshi Hatashita, et al.*, Aizu Traumatol. and Reconstr. Surg. Center, Aizu Chuo Hosp...S145
- 1-11-S6-4 Surgical approach on the hind foot in consideration of angiosomes: In regard to extended  
 lateral approach for calcaneal fractures  
 ..... *Koichi Sasajima, et al.*, Dept. of Orthop. Surg., Iwaki City Medical Center...S145
- 1-11-S6-5 Surgical approach in the midfoot and the forefoot based on the angiosome concept  
 ..... *Shuji Isefuku*, Dept. of Orthop. Surg., South Miyagi Medical Center...S146

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**8 : 00 ~ 9 : 00 Instructional lecture 17 Moderator M. Akagi**

1-12-EL17 History of total knee arthroplasty: Aiming to improve clinical results  
 ..... *Tokifumi Majima*, Dept. of Orthop. Surg.,  
 Field of Surg., Nippon Medical School, Graduate School of Medicine...S147

**9 : 15 ~ 10 : 15 Instructional lecture 18 Moderator M. Saito**

1-12-EL18 Osteoporosis therapy: From basic to clinical  
 ..... *Takeshi Miyamoto*, Dept. of Orthop. Surg., Kumamoto Univ. Hosp...S147

**10 : 30 ~ 11 : 30 Instructional lecture 19 Moderator A. Okawa**

1-12-EL19 The way to make “Medical accident” into “Patient-safety”: The method of investigation  
 and analysis ..... *Sosuke Kimura*, Japan Medical Safety Research Organization...S148

**12 : 00 ~ 13 : 10 Luncheon seminar 11 Moderator H. Yamada**

1-12-LS11 Improvement of minimally invasive surgery for adult spinal deformity using C-MIS technique  
 and its further progress ..... *Takanori Saito*, Dept. of Orthop. Surg. Kansai Medical Univ...S148

**14 : 40 ~ 15 : 40 100-year lifespan era lecture 1 Moderator S. Okada**

1-12-100YL1 Aging regulated by epigenome and rejuvenation  
 ..... *Motoshi Hayano*, Dept. of Orthop. Surg., Keio Univ...S149

**15 : 55 ~ 16 : 55 Instructional lecture 20 Moderator Y. Matsuyama**

1-12-EL20 Disruptive behavior and patient safety  
 ..... *Yoshimasa Nagao*, Dept. of Patient Safety, Nagoya Univ. Hosp...S149

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Moderators Y. Tajiri, M. Ikeuchi

**Collaboration between orthopaedic surgery and general medicine departments: Current status and issues**

- 1-12-S7-1 Collaborative care in geriatric proximal femoral fractures: Challenges and lessons learned  
.....*Akira Muto*, Urasoe General Hosp.···S150
- 1-12-S7-2 Collaboration between orthopaedics and primary care: Current status and challenges -focusing  
on the perioperative management of hip fractures-  
.....*Takahisa Ogawa, et al.*, Dept. of Orthop. Surg., Saku General Hosp. Saku Medical Center···S150
- 1-12-S7-3 Collaboration between general practitioners and orthopaedic surgeons at Nanto  
Municipal Hospital.....*Makoto Oura, et al.*, Dept. of Intern. Med., Nanto Municipal Hosp.···S151
- 1-12-S7-4 Hospitalist co-management for elderly patients with hip fractures and vertebral fractures in  
Takatsuki General Hospital  
.....*Ayako Tsunemitsu*, Dept. of General Internal Medicine, Takatsuki General Hosp.···S151
- 1-12-S7-5 Comanagement between orthopaedics and general medicine: How far can we go?  
.....*Shintaro Kosaka*, Dept. of Hosp. Med., Tokyo Metropolitan Hiroo Hosp.···S152

**1st Day May 23 Poster**

10 : 10 ~ 10 : 45 Poster (Booth No. 1, Marine Messe Fukuoka Hall B)

Moderator A. Minamide

**Cervical spine 1**

- 1-Po-1 Evaluation of cervical spine radiographs in the patients with the retro-odontoid pseudotumor  
.....*Koki Kawaguchi, et al.*, Dept. of Musculoskeletal Surg.,  
Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine···S153
- 1-Po-2 The sagittal plane inclination angle of the atlantoaxial joint in patients with cervical spine disorders  
.....*Tokue Mieda, et al.*, Dept. of Orthop. Surg., Gunma Univ. Graduate School of Medicine···S153
- 1-Po-3 Comparison of screw accuracy and complications between minimally invasive cervical pedicle  
screw (MICEPS) fixation and conventional cervical pedicle screw fixation  
.....*Takuya Taoka, et al.*, Dept. of Orthop. Surg., Okayama Rosai Hosp.···S154
- 1-Po-4 Cervical alignment in patients with acute exacerbation of cervical compression myelopathy  
.....*Masato Sanada, et al.*, Dept. of Orthop. Surg.,  
Graduate School of Medical and Dental Sciences, Kagoshima Univ.···S154
- 1-Po-5 Estimation of cervical sagittal alignment by visual distance and head angle: What parameters affect  
the estimating accuracy?  
.....*Ko Hashimoto, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine···S155
- 1-Po-6 Cervical posterior spondylolisthesis is caused by compensation for high T1 slope  
.....*Koji Matsumoto, et al.*, Dept. of Orthop. Surg., Nihon Univ.···S155
- 1-Po-7 The relationship between degenerative cervical spondylolisthesis and spinopelvic parameter  
.....*Koji Matsumoto, et al.*, Dept. of Orthop. Surg., Nihon Univ.···S156

10 : 10 ~ 10 : 45 Poster (Booth No. 2, Marine Messe Fukuoka Hall B)

Moderator K. Saita

**Lumbar spine 1**

- 1-Po-8 Bone fusion of alkaline heat-treated pure titanium porous cage used in lumbar interbody fusion  
.....*Shunki Iemura, et al.*, Dept. of Orthop. Surg., PL Hosp.···S157
- 1-Po-9 Short-term results of posterior lumbar interbody fusion using a new interbody spacer aiming at  
early bone guidance.....*Tomohiko Hasegawa, et al.*, Dept. of Geriatric Musculoskeletal Health,  
Hamamatsu Univ. School of Medicine···S157

- 1-Po-10 Comparative surgical cost analysis of three minimally invasive fusion techniques for elderly lumbar degenerative disease ..... *Akihito Wada*, Dept. of Orthop. Surg., Toho Univ. (Omori) ...S158
- 1-Po-11 The impact of pain on lumbar spine functional radiographs: A comparison of new and conventional methods .... *Tomonori Morita, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S158
- 1-Po-12 Measurements of hip abduction strength for lumbar operated patients with drop foot ..... *Yuji Hatakeyama, et al.*, Dept. of Orthop. Surg., Akita Red Cross Hosp. ...S159
- 1-Po-13 Impact of preoperative nutritional status on surgical drain output and in-hospital complications after elective lumbar spine surgery in elderly patients ..... *Eiji Takasawa, et al.*, Dept. of Orthop. Surg., Gunma Univ. Graduate School of Medicine ...S159
- 1-Po-14 Efficacy of percutaneous rupture for lumbar facet cysts ..... *Yohei Ishihara, et al.*, Asao General Hosp. Spine Center ...S160

**10 : 10 ~ 10 : 45    Poster (Booth No. 3, Marine Messe Fukuoka Hall B)    Moderator    S. Kobayashi**  
**UKA**

- 1-Po-15 Relationship between placement status of femoral component relative to tibial component coronal plane in UKA extension position and clinical results ..... *Toshihiko Goto, et al.*, Dept. of Orthop. Surg., Hiroshima Prefectural Akitsu Hosp. ...S161
- 1-Po-16 The influence of postoperative posterior tibial slope on the clinical outcomes in fixed-bearing UKA ..... *Mitsuki Kusaba, et al.*, Dept. of Orthop Surg., Hyogo Prefectural Harima-Himeji General Medical Center ...S161
- 1-Po-17 Relationship between preoperative knee varus angle and clinical outcomes after the unicompartmental knee arthroplasty ..... *Fumio Masuda, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine ...S162
- 1-Po-18 Finite element analysis of stress concentration on the medial tibial cortex due to peripheral load in UKA ..... *Kotaro Yamagishi*, Dept. of Orthop. Surg., Kindai Univ. Faculty of Medicine ...S162
- 1-Po-19 Relationship between kinematics and patient-reported outcomes in uni-compartmental knee arthroplasty ..... *Yuki Murakami, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine ...S163
- 1-Po-20 Factors associated with tibial bone resorption after unicompartmental knee arthroplasty ..... *Yuki Uda, et al.*, Dept. of Orthop. Surg., Kyoto Univ. Hosp. ...S163
- 1-Po-21 The radiological examination of optimal component positioning to reduce spinning out risk in mobile-bearing UKA (MUKA/Oxford partial knee) ..... *Katsuyuki Imamura, et al.*, Dept. of Orthop. Surg., Tenyoukai Central Hosp. ...S164

**10 : 10 ~ 10 : 45    Poster (Booth No. 4, Marine Messe Fukuoka Hall B)    Moderator    M. Hasegawa**  
**TKA 1**

- 1-Po-22 Impact of bearing form on postoperative clinical outcomes in 700 primary TKAs ..... *Yoshiaki Okajima, et al.*, Joint Arthroplasty Center, Naniwa Ikuno Hosp. ...S165
- 1-Po-23 The effect of lower limb rotation on measurement of arithmetic-HKA in long-leg radiography ..... *Naohiro Oka, et al.*, Dept. of Orthop. Surg., Kindai Univ. Nara Hosp. ...S165
- 1-Po-24 Cartilage thickness and wear of posterior medial femoral condyle in severe varus osteoarthritic knee ..... *Ryosuke Sugimoto, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S166
- 1-Po-25 Comparative study of invasiveness of TKA and UKA based on blood data: Bilateral UKA is less invasive than unilateral TKA ..... *Seiji Kawaguchi, et al.*, Dept. of Orthop. Surg., Notogawa Hosp. ...S166
- 1-Po-26 Outcomes of bilateral knee arthroplasty for the elderly: Analysis between patients over 80 years old and under 80 years old ..... *Kiyotaka Horiuchi, et al.*, Dept. of Orthop. Surg., Kawaguchi Kogyo General Hosp. ...S167

- 1-Po-27 Comparative study on postoperative deep infection in 3300 primary TKAs  
 ..... *Yoshiaki Okajima, et al.*, Joint Arthroplasty Center, Naniwa Ikuno Hosp. ...S167
- 1-Po-28 Over ten years results of modular unlinked bicompartamental knee arthroplasty (BiKA) for medial  
 tibio-femoral and patello-femoral osteoarthritis of the knee  
 ..... *Rikiya Baba, et al.*, Dept. of Orthop. Surg., Hakodate Orthop. Clinic ...S168

**10 : 10 ~ 10 : 45 Poster (Booth No. 5, Marine Messe Fukuoka Hall B) Moderator K. Maezawa**  
**DDH: Pelvic osteotomy 1**

- 1-Po-29 Correlation of patient reported outcome measures with acetabular coverage after periacetabular  
 osteotomy in patients with hip dysplasia  
 ..... *Shiori Tanaka, et al.*, Dept. of Orthop. Surg., Saga Univ. ...S169
- 1-Po-30 Clinical result of transposition osteotomy of the acetabulum for the treatment of neurogenic  
 hip dysplasia ..... *Kazuki Miyamoto, et al.*, Dept. of Orthop. Surg., Saga Univ. ...S169
- 1-Po-31 Patient-reported outcome measures are similar following acetabular displacement surgery for  
 acetabular dysplasia and borderline acetabular dysplasia  
 ..... *Takaomi Kobayashi, et al.*, Dept. of Orthop. Surg., Saga Univ. ...S170
- 1-Po-32 Effect of periacetabular osteotomy on stress distribution of the knee joint  
 ..... *Yuki Ogawa, et al.*, Dept. of Orthop. Surg.,  
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S170
- 1-Po-33 Clinical result of transposition osteotomy of the acetabulum for hip dysplasia with  
 advanced osteoarthritis ..... *Shiori Tanaka, et al.*, Dept. of Orthop. Surg., Saga Univ. ...S171
- 1-Po-34 Long-term outcomes of rotational acetabular osteotomy combined with femoral wedge valgus  
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 ..... *Yasushi Yoshikawa, et al.*, Dept. of Orthop. Surg., Showa Univ. ...S171
- 1-Po-35 Period until return to work after bilateral one-stage femoral osteotomy  
 ..... *Minoru Watanabe, et al.*, Dept. of Orthop. Surg., Fujigaoka Hosp., Showa Univ. ...S172

**10 : 10 ~ 10 : 45 Poster (Booth No. 6, Marine Messe Fukuoka Hall B) Moderator S. Jingushi**  
**Hip fracture surgery: Femoral neck fracture**

- 1-Po-36 Is a plate necessary for cannulated cancellous screws for non-displaced femoral neck fractures?  
 ..... *Kento Maeda, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,  
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S173
- 1-Po-37 Retrospective multicenter study (TRON study) of clinical comparison of cancellous cannulated  
 screw versus femoral neck system for femoral neck fractures  
 ..... *Eiki Morisaki, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,  
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S173
- 1-Po-38 Postoperative results of osteosynthesis with FNS for non-displaced femoral neck fractures in  
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- 1-Po-39 Comparative outcomes of in-situ and reduction fixation techniques in geriatric patients with  
 valgus-impacted femoral neck fractures: Retrospective multicenter study  
 ..... *Tatsuya Nobori, et al.*, Dept. of Orthop. Surg., Nagoya Univ. Hosp. ...S174
- 1-Po-40 The effect of percutaneous reduction technique for treatment of valgus impacted femoral  
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 ..... *Hitoshi Hirase, et al.*, Hyogo Prefectural Nishinomiya Hosp. Orthop. Trauma Center ...S175
- 1-Po-41 Valgus impacted femoral neck fractures can be reduced with lateral traction  
 ..... *Masaya Yamaguchi, et al.*, Dept. of Orthop. Surg., Showa Univ. Northern Yokohama Hosp. ...S175
- 1-Po-42 Whole span plating for periprosthetic femoral fracture can prevent postoperative new  
 periprosthetic femoral fracture  
 ..... *Shunsuke Sato, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ. ...S176

10 : 10 ~ 10 : 45    **Poster (Booth No. 7, Marine Messe Fukuoka Hall A)**    **Moderator M. Yamada**  
**Clavicle & proximal humerus fracture**

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- 1-Po-511 Impact of diffuse idiopathic skeletal hyperostosis on surgical outcomes of posterior lumbar interbody fusion for lumbar spinal stenosis  
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- 1-Po-516 The evaluation of dynamic ultrasound detects the dynamics of lateral meniscus extrusion in patient with discoid lateral meniscus ..... *Yosuke Ishii, et al.*, Dept. of Biomechanics, Graduate School of Biomedical and Health Sciences, Hiroshima Univ....S444
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- 1-Po-520 Comparative study of clinical outcome of intra-articular injection of autologous protein solution and leukocyte-poor PRP for osteoarthritis of the knee ..... *Yu Taniguchi, et al.*, Dept. of Orthop. Surg., Ichihara Hosp....S446
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- 1-Po-527 Anatomical study to avoid femoral nerve palsy in total hip arthroplasty: The prediction of femoral nerve using plane X-ray ..... *Takashi Koura, et al.*, Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ....S450
- 1-Po-528 A study of risk factors and its effect on walking ability at discharge for stem sinking after bipolar hemiarthroplasty ..... *Kana Yamada, et al.*, Dept. of Orthop. Surg., Sendai Medical Association Hosp....S451
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- 1-Po-530 Factors influencing subjective leg length difference after THA ..... *Yusuke Sudo*, Dept. of Orthop. Surg., Tamagawa Hosp....S452
- 1-Po-531 Amount of minimum lower limb lengthening for direct superior approach (DSA) THA with Mako robotic assistance ..... *Shigeo Aota, et al.*, Hoshi General Hosp. Foundation, Hip Joint Reconstruction Center...S452
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Moderator T. Hoshi

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- 1-Po-536 Comparison with general anesthesia and regional anesthesia about trochanter fracture outcomes for the elderly: A multicenter (TRON) retrospective analysis ..... *Hiroki Takeshige, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S455
- 1-Po-537 Mortality of proximal femur fractures in cancer patients comparing with non-cancer patients ..... *Masaki Mikami, et al.*, Dept. of Orthop. Surg., Yamagata Prefectural Central Hosp...S456
- 1-Po-538 Report of proximal femoral fracture with severe aortic stenosis ..... *Takafumi Kitbori, et al.*, Dept. of Orthop. Surg., Miyazaki Medical Association Hosp...S456
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- 1-Po-540 Characteristics of carpal tunnel patients with transthyretin amyloid deposit ..... *Kaori Sugiura, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine...S458
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- 1-Po-542 Characteristics of amyloid-positive cases in idiopathic carpal tunnel syndrome ..... *Haruka Maehara, et al.*, Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ...S459
- 1-Po-543 Median nerve volume in carpal tunnel syndrome by three-dimensional MRI ..... *Takuya Funahashi, et al.*, Dept. of Orthop. Surg., Toyota Regional Medical Center...S459
- 1-Po-544 Trends in patient-reported outcome measures after carpal tunnel release ..... *Kosuke Saito, et al.*, Dept. of Orthop. Surg., Osaka Metropolitan Univ. Hosp...S460
- 1-Po-545 Assessment of NRS for numbness following carpal tunnel syndrome surgery and its associated factors ..... *Takahiro Yamazaki, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S460
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Moderator N. Asano

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- 1-Po-548 Primary high-grade sarcoma of the spine: Experience with 11 cases  
 ..... *Ryunosuke Fukushi, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S462
- 1-Po-549 A retrospective study about the possibility to avoid preoperative radiotherapy for the patients of spinal metastasis surgery  
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- 1-Po-550 Surgical outcome of spinal metastasis of hepatocellular carcinoma: Case series of 26 cases in the past 32 Years ..... *Yohei Yamada, et al.*, Dept. of Orthop. Surg.,  
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- 1-Po-551 Utility of preoperative nutritional status as a substitute for prognostic scoring in cases of palliative surgery for metastatic spinal tumors  
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 ..... *Ryoko Sawada, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S465

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**Sports: Knee 1**

- 1-Po-554 The effect of meniscal repair on meniscal dimension in meniscal tear patients  
 ..... *Takuya Kinoshita, et al.*, Dept. Orthop. Surg., Osaka Saiseikai Nakatsu Hosp. ...S466
- 1-Po-555 Analysis of return to play after inside out meniscus repair  
 ..... *Tomoaki Kamiya, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S466
- 1-Po-556 Assessment of knee joint cartilage after open-wedge distal tuberosity osteotomy by second-look arthroscopy  
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- 1-Po-559 Anatomical factors and sports activity in patients with lateral patellar instability  
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 ..... *Saki Shiraishi, et al.*, Dept. of Orthop. Surg., Juko Memorial Nagasaki Hosp. ...S469
- 1-Po-561 The relationship between the effects of denosumab and bone turnover at baseline for the patients with osteoporosis ..... *Yusuke Yamamoto, et al.*, Dept. of Orthop. Surg., Nakamura Hosp. ...S469
- 1-Po-562 Does osteoporosis treatment affect renal function?  
 ..... *Tomohiko Kanbe*, Dept. of Orthop. Surg., Kitasato Univ. ...S470
- 1-Po-563 Effect of denosumab on bone metabolism in hemodialysis patients with osteoporosis  
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- 1-Po-564 Comparison of BMD changes and adverse events between zoledronic acid and denosumab in combination with active vitamin D for osteoporosis  
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- 1-Po-565 Effects of bisphosphonates and romosozumab on proximal femoral bone mineral density  
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- 1-Po-569 Role and activities of clinical nurse practitioners in orthopaedic surgery practice  
 ..... *Shunichi Fujii, et al.*, Dept. of Orthop. Surg., Ome Medical Center ...S474
- 1-Po-570 Current status of task shifting to nurse practitioners in orthopaedic surgery and its effect  
 ..... *Kouji Ogawa, et al.*, Dept. of Orthop. Surg., Ome Medical Center ...S474
- 1-Po-571 Survey on sustainable development goals (SDGs) among orthopaedic implant manufacturers  
 ..... *Juji Ito, et al.*, Dept. of Orthop. Surg., Yamagata Univ. ...S475
- 1-Po-572 Current status of the orthopaedic industry with respect to disposal, recycling, and reduction of  
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- 1-Po-573 Changes in tissue transplant status in orthopaedic surgery: Comparing the results of the sixth  
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- 1-Po-576 Clinical validation of siamese CNN-based approach for preoperative decision-making in  
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 Hosp. Univ. de la Ribera, Valencia, Spain ...S478
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- 1-Po-579 Three-dimensional evaluation of distal femoral valgus angle using whole leg CT in total  
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 ..... *Rajesh K. Rajnish, et al.*, Dept. of Orthop., AIIMS Jodhpur, Rajasthan, India ...S480

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**8 : 00 ~ 9 : 20 Symposium 8**

**Moderators M. Ito, A. Misawa**

**Treatment of spinal deformities: Current status and future prospects - from children to the elderly**

- 2-1-S8-1 Current situation and future prospects of school scoliosis screening in Japan  
 ..... *Hiroshi Kuroki*, Dept. of Orthop. Surg., Miyazaki Higashi Hosp. ...S481
- 2-1-S8-2 Treatment for early onset scoliosis: Current problem and prospects for the future  
 ..... *Taichi Tsuji*, Dept. of Orthop. Surg., Toyota Kosei Hosp. ...S481
- 2-1-S8-3 Brace treatment for pediatric scoliosis: Report from registry outcome committee in Japanese  
 Scoliosis Society ..... *Satoru Demura, et al.*, Dept. of Orthop. Surg.,  
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- 2-1-S8-4 Current and future surgical treatments for adolescent idiopathic scoliosis  
 ..... *Tsutomu Akazawa, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine ...S482
- 2-1-S8-5 Current status and future prospects of surgical treatment for adult spinal deformity  
 ..... *Yu Yamato, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine ...S483
- 2-1-S8-6 Evidence of exercise therapy for malalignment patients with lumbar kyphosis: JSSR  
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**Moderators H. Nakamura, S. Yamamoto**

**Physicians' work style reform and spine surgery**

- 2-1-S9-1 New work style for medical doctors  
 ..... *Koutaro Yokote*, Chiba Univ. Hosp. ...S484
- 2-1-S9-2 Effects of doctor work style reform on the community spine medicine  
 ..... *Toshihiko Yamashita, et al.*, Sapporo Medical Univ. ...S484
- 2-1-S9-3 Spine surgeon's work style reforms in my university hospital  
 ..... *Shiro Imagama, et al.*, Dept. of Orthop./Rheumatology,  
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 Graduate School of Medicine, Nagoya Univ. ...S485
- 2-1-S9-4 Is this really the right way to work style reform for spine surgeons?: Perspective from an  
 emergency hospital ..... *Yasuo Ito*, Dept. of Orthop. Surg., Japanese Red Cross Kobe Hosp. ...S485
- 2-1-S9-5 The work style reform for orthopaedic surgeons: Perspective from an acute general hospital  
 ..... *Tokumi Kanemura, et al.*, Dept. of Orthop. Surg., Konan Kosei Hosp. ...S486

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- 2-1-IL10-1 Pathogenesis of adult spinal deformity ..... *Steven D. Glassman*, Orthop. Surg.,  
 Univ. of Louisville School of Medicine, Louisville, KY, USA ...S487
- 2-1-IL10-2 Ethnic difference of surgical treatment for adult spinal deformity  
 ..... *Naobumi Hosogane*, Dept. of Orthop. Surg., Kyorin Univ. ...S487

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**Moderator K. Nishida**

- 2-1-LS12-1 SpA is always there: Diagnostic and therapeutic approach to peripheral spondyloarthritis  
 ..... *Toshifumi Fujiwara*, Dept. of Orthop. Surg.,  
 Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ. ...S488
- 2-1-LS12-2 Diagnosis and differentiation of axial spondyloarthritis  
 ..... *Mochihito Suzuki, et al.*, Dept. of Orthop./Rheumatology,  
 Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,  
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- 2-1-EL21 Full-endoscopic spine surgery under local anesthesia: Current status and perspectives  
 .....*Koichi Sairyō*, Dept. of Orthop.,  
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- 2-1-S10-1 Trans-foraminal full endoscopic discectomy for lumbar disc herniation  
 .....*Kazuta Yamashita, et al.*, Dept. of Orthop.,  
 Institute of Biomedical Sciences, Tokushima Univ. Graduate School...S490
- 2-1-S10-2 Current results and perspective of intra-discal injection of condoliase for the treatment for lumbar intervertebral disc herniation .....*Takashi Hirai*, Dept. of Orthop. and Spinal Surg.,  
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- 2-1-S10-3 The future development of intradiscal treatment for lumbar herniated disc with human recombinant MMP-7 .....*Hiroataka Haro*, Dept. of Orthop. Surg.,  
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- 2-1-S10-4 Intervertebral disc regeneration for the treatment of lumbar disc herniation  
 .....*Daisuke Sakai, et al.*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ...S491
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<b>Innovation in assistive technology for spinal instrumentation surgery: Navigation and robotics</b>		

- 2-1-S11-1 The maturation of spine navigation surgery  
 .....*Kenichiro Sakai, et al.*, Dept. of Orthop. Surg., Saiseikai Kawaguchi General Hosp...S493
- 2-1-S11-2 The efficacy and limitation of microscopic augmented reality navigation spine surgery  
 .....*Yasushi Fujiwara*, Dept. of Orthop. Surg.,  
 Hiroshima City North Medical Center Asa Citizens Hosp...S493
- 2-1-S11-3 From navigation-assisted spine surgery to robot-assisted spine surgery  
 .....*Mikito Tsushima, et al.*, Dept. of Orthop. Surg., Konan Kosei Hosp...S494
- 2-1-S11-4 Spinal robot surgery: The current situation in Japan and future prospect  
 .....*Yoshiharu Kawaguchi, et al.*, Dept. of Orthop. Surg., Faculty of Medicine, Univ. of Toyama...S494
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 .....*Jun Takahashi, et al.*, Dept. of Orthop. Surg., Shinshu Univ...S495

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- 2-2-EL22 ACL reconstruction 2024  
 .....*Ryosuke Kuroda, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S496

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<b>Pathology and treatment of early osteoarthritis of the knee</b>		

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 .....*Eiji Sasaki, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S497
- 2-2-S12-2 Advances in imaging diagnosis of early-stage knee osteoarthritis  
 .....*Haruka Kaneko, et al.*, Dept. of Orthop., Juntendo Univ...S497

- 2-2-S12-3 Mechanisms of pain in early knee osteoarthritis  
 ..... *Koji Aso, et al.*, Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ.··S498
- 2-2-S12-4 Conservative treatment for early knee osteoarthritis  
 ..... *Hiroshi Koga, et al.*, Div. of MSK Sci. for Frailty,  
 Niigata Univ. Graduate School of Medical and Dental Sciences··S498
- 2-2-S12-5 Treatment of meniscus injuries in early knee osteoarthritis  
 ..... *Hideyuki Koga*, Dept. of Joint Surg. and Sports Medicine,  
 Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ.··S499
- 2-2-S12-6 Knee osteotomy for early osteoarthritis  
 ..... *Hiroshi Nakayama, et al.*, Dept. of Orthop. Surg., Hyogo College of Medicine··S499

<b>11 : 10 ~ 12 : 10</b>	<b>Instructional lecture 23</b>	<b>Moderator T. Majima</b>
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- 2-2-EL23 Challenges in improving TKA patient satisfaction  
 ..... *Shuichi Matsuda*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.··S500

<b>12 : 40 ~ 13 : 50</b>	<b>Luncheon seminar 13</b>	<b>Moderator S. Matsuda</b>
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- 2-2-LS13 CPAK classification in Japan and personalized positioning TKA using Mako system  
 ..... *Takumi Nakagawa*, Dept. of Orthop. Surg., Teikyo Univ.··S501

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- 2-2-IL11-1 Restoring pre-disease alignment in knee arthroplasty: Kinematic alignment in UKA and TKA  
 ..... *Andrew J. Price*, NOC, NDORMS, Univ. of Oxford, Oxford, UK··S502
- 2-2-IL11-2 Aiming for improved outcomes in Oxford UKA: Regarding indication and prevention  
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<b>15 : 20 ~ 16 : 40</b>	<b>Symposium 13</b>	<b>Moderators T. Nakagawa, Y. Niki</b>
<b>TKA in the era of robotic-assisted surgery (PROMs and alignment)</b>		

- 2-2-S13-1 Clinical outcome of mechanical alignment total knee arthroplasty with the VELYSTM  
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 ..... *Nobuhiro Abe*, Dept. of Orthop. Surg. and Sport Medicine, Kawasaki Med. School··S503
- 2-2-S13-2 TKA and UKA with Cori ..... *Shu Kobayashi, et al.*, Dept. of Orthop. Surg., Keio Univ.··S503
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- 2-2-S13-4 Patient-reported outcome measures (PROMs) and alignment in total knee arthroplasty  
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<b>Reconsideration of knee joint alignment</b>		

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- 2-2-S14-2 Evaluation of three-dimensional knee joint alignment during the stance phase of walking  
 ..... *Tatsuya Soeno, et al.*, Dept. of Orthop. Surg., Niigata Medical Center··S506
- 2-2-S14-3 Alignment of knee osteoarthritis  
 ..... *Kazuya Kaneda, et al.*, Dept. of Orthop. Surg., Tokyo Medical Center··S507
- 2-2-S14-4 The concept of knee alignment correction in meniscus preservation  
 ..... *Tomomasa Nakamura, et al.*, Dept. of Joint Surg. and Sports Medicine,  
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- 2-2-S14-5 Our target alignment in high tibial osteotomy for medial knee osteoarthritis  
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**Indications and limitations of hip arthroscopy**

- 2-3-S15-1 Hip arthroscopy to maximize the rehabilitation effect  
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- 2-3-S15-2 Cam resection using a skip capsulotomy method that preserved the iliofemoral ligament:  
 Comparison between intraportal capsulotomy and skip capsulotomy method  
 ..... *Masayoshi Saito, et al.*, Dept. of Orthop. Surg., Hokusuiikai Kinen Hosp. ...S509
- 2-3-S15-3 Hip arthroscopy for athletes ..... *Hajime Utsunomiya*, Tokyo Sports & Orthop. Clinic ...S510
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- 2-3-S15-5 Clinical role and current limitation of computer assisted technology for hip arthroscopy  
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 ..... *Hyonmin Choe, et al.*, Musculoskeletal Science,  
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- 2-3-S16-2 Essentials of changes in the guideline: Chapter 2. pathology  
 ..... *Kazumasa Miyatake, et al.*, Dept. of Joint Surg. and Sports Medicine,  
 Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ. ...S512
- 2-3-S16-3 Chapter 3: 'Diagnosis' Key points of the revised guideline  
 ..... *Yoshitomo Kajino, et al.*, Dept. of Orthop. Surg.,  
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- 2-3-S16-4 Clinical practice guideline for the hip chapter 4: Conservative treatment  
 ..... *Hirosuke Endo, et al.*, Dept. of Bone and Joint Surg., Kawasaki Medical School ...S513
- 2-3-S16-5 Chapter 5: 'Joint preservation surgery' Key points of the revised guideline  
 ..... *Satoshi Hamai, et al.*, Dept. of Orthop. Surg.,  
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 ..... *Masanori Fujii, et al.*, Dept. of Orthop. Surg., Saga Univ. ...S515

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- 2-3-EL24 Mechanisms and countermeasures for operative complications in total hip arthroplasty  
 ..... *Tamon Kabata*, Dept. of Orthop. Surg.,  
 Graduate School of Medical Sciences, Kanazawa Univ. ...S516

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- 2-3-LS14-1 Use of a smartphone-based care platform in the perioperative management of primary knee  
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2-3-LS14-2 Digital transformation by surgical robotics and smartphone application for knee arthroplasty  
 .....*Takafumi Hiranaka*, Dept. of Orthop. Surg., Takatsuki General Hosp.···S517

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<b>Urgent surgery for hip fractures and work style reform</b>		

- 2-3-S17-1 Establishment of an early surgical team for proximal femoral fractures  
 .....*Shunji Kishida, et al.*, Dept. of Orthop. Surg., Seirei Sakura Citizen Hosp.···S519
- 2-3-S17-2 Total care of hip fracture patients by hospitalists  
 .....*Sanshiro Inoue, et al.*, Dept. of Gen. Int. Med., Iizuka Hosp.···S519
- 2-3-S17-3 What to do? Early surgery & work style reform: Orthopaedic surgery hospital  
 .....*Toru Nagatani, et al.*, Dept. of Orthop. Surg., Yonemori Hosp.···S520
- 2-3-S17-4 Hip fractures and workstyle reform in public hospitals  
 .....*Shimpei Kitada, et al.*, Dept. of Orthop. Recon. Center, Hyogo Pref. Nishinomiya Hosp.···S520
- 2-3-S17-5 Reality of early surgery for geriatric hip fracture and overtime work at Nagasaki  
 Medical Center .....*Takashi Miyamoto*, Dept. of Orthop. Surg., Nagasaki Medical Center···S521
- 2-3-S17-6 Struggle with early operation for proximal femoral fracture  
 .....*Atsuhiko Fujie, et al.*, Dept. of Orthop. Surg., Keio Univ.···S521

16 : 55 ~ 18 : 15	<b>Symposium 18</b>	<b>Moderators M. Mawatari, A. Kaneuji</b>
<b>Pelvic osteotomy for acetabular dysplasia</b>		

- 2-3-S18-1 Rotational acetabular osteotomy (Tagawa method) for severe acetabular dysplasia  
 .....*Hitoshi Taneda, et al.*, Dept. of Orthop. Surg., Nishi Tokyo Chuo Hosp.···S522
- 2-3-S18-2 Rotational acetabular osteotomy using CT-based navigation system  
 .....*Hyonmin Choe, et al.*, Musculoskeletal Science,  
 Yokohama City Univ. Graduate School of Medicine···S522
- 2-3-S18-3 Pros and cons of the spherical periacetabular osteotomy  
 .....*Toru Nishiwaki*, Joint Reconstruction Center,  
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- 2-3-S18-4 Pros & cons of CPO and its clinical result with kaizen efforts  
 .....*Koji Goto, et al.*, Dept. of Orthop. Surg., Kindai Univ. Faculty of Medicine···S523
- 2-3-S18-5 Indications and practice of Chiari pelvic osteotomy  
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8 : 00 ~ 9 : 20	<b>Symposium 19</b>	<b>Moderators K. Hiraoka, H. Morioka</b>
<b>Social issues surrounding the treatment of bone and soft tissue tumor</b>		

- 2-4-S19-1 Current status and challenges in the treatment of malignant bone tumors in the elderly  
 .....*Akihito Nagano, et al.*, Dept. of Orthop. Surg., Div. of Disease Control,  
 Research Field of Medical Sciences, Graduate School of Medicine, Gifu Univ.···S525
- 2-4-S19-2 Current situation of the treatment for elderly patients with soft tissue sarcoma  
 .....*Tomoki Nakamura, et al.*, Dept. of Musculoskeletal Surg.,  
 Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine···S525

- 2-4-S19-3 The role of orthopaedic surgeons in cancer care  
 ..... *Jungo Imanishi, et al.*, Dept. of Orthop. Surg., Teikyo Univ. ...S526
- 2-4-S19-4 Current status and issues of medical reimbursement for treatment of bone and soft  
 tissue tumors ..... *Masachika Ikegami*, Dept. of Musculoskeletal Oncol.,  
 Tokyo Metropolitan Cancer and Infectious Diseases Center Komagome Hosp. ...S526
- 2-4-S19-5 The future of orthopaedic oncologists  
 ..... *Yoshihiro Nishida, et al.*, Dept. of Rehabilitation, Nagoya Univ. Hosp. ...S527

**9 : 35 ~ 10 : 55      Symposium 20      Moderators   T. Takagi, U. Anazawa**  
**New guidelines for the treatment of bone metastasis: Relevance and significance of orthopaedics**

- 2-4-S20-1 Change in orthopaedics in guidelines for the treatment of bone metastases  
 ..... *Eisuke Kobayashi*, Dept. of Musculoskeletal Oncology and Rehabilitation,  
 National Cancer Center Hosp. ...S528
- 2-4-S20-2 Significance of the cancer board in the treatment of bone metastasis  
 ..... *Hideo Morioka, et al.*, Dept. of Orthop. Surg., Tokyo Medical Center ...S528
- 2-4-S20-3 Role of prognostic score in guide line for skeletal metastasis  
 ..... *Yoshihiro Matsumoto, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ. ...S529
- 2-4-S20-4 Treatment of spinal metastases from the perspective of guidelines for bone  
 metastasis treatment ..... *Shurei Sugita, et al.*, Dept. of Orthop. Surg.,  
 Tokyo Metropolitan Cancer and Infectious Diseases Center Komagome Hosp. ...S529
- 2-4-S20-5 Drug therapy for bone metastasis  
 ..... *Hitomi Hara, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S530
- 2-4-S20-6 Topics on rehabilitation and orthosis for patients with bone metastasis  
 ..... *Yusuke Shinoda*, Dept. of Rehabilitation Medicine, Saitama Medical Univ. ...S530

**11 : 10 ~ 12 : 10      Instructional lecture 26      Moderator   K. Tanaka**

- 2-4-EL26 Diagnosis and treatment of soft tissue sarcomas: Past, present, and future  
 ..... *Makoto Endo*, Dept. of Orthop. Surg., Kyushu Univ. Hosp. ...S531

**12 : 40 ~ 13 : 50      Luncheon seminar 15      Moderator   Y. Matsumoto**

- 2-4-LS15 Drug selection strategy for neuropathic pain: Significance and usefulness of monotherapy  
 ..... *Tetsuya Sakai*, Dept. of Pain Clinic and Anesthesia, Sasebo Kyosai Hosp. ...S531

**14 : 05 ~ 15 : 05      Invited lecture 12      Moderator   H. Tsuchiya**

- 2-4-IL12-1 3D printed modular hemipelvic endoprosthetic reconstruction following periacetabular  
 tumor resection  
 ..... *Wei Guo*, Musculoskeletal Tumor Dept., Peking Univ. People's Hosp., Beijing, China ...S532
- 2-4-IL12-2 International trends in the treatment strategy for pelvic sarcomas among countries: What is an  
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 ..... *Tomohiro Fujiwara*, Dept. of Orthop. Surg., Okayama Univ. Hosp. ...S532

**15 : 20 ~ 16 : 40      Symposium 21      Moderators   N. Yamamoto, T. Akiyama**  
**Local treatment for bone and soft tissue tumors of the trunk**

- 2-4-S21-1 Particle therapy using carbon ions or protons for bone and soft tissue sarcomas of the trunk:  
 Current situation and challenges  
 ..... *Yusuke Demizu*, Dept. of Radiat. Oncol., HIBMC Kobe Proton Center ...S533
- 2-4-S21-2 Surgical treatment of retroperitoneal malignant soft tissue tumors: Situation and problems for  
 the future from urologist  
 ..... *Motokiyo Komiyama, et al.*, Dept. of Urology, National Cancer Center Hosp. ...S533

- 2-4-S21-3 The current status of the surgical management of spinal or paraspinal malignant tumor  
 ..... *Naofumi Asano, et al.*, Dept. of Orthop. Surg., Keio Univ. ...S534
- 2-4-S21-4 Current status and issues in surgical treatment of malignant bone and soft tissue tumors of the chest wall  
 ..... *Keisuke Ae*, Dept. of Orthop. Oncol., Cancer Institute Hosp. of JFCR ...S534
- 2-4-S21-5 Surgical management for malignant pelvic tumor  
 ..... *Toshiyuki Kunisada, et al.*, Dept. of Medical Materials for Musculoskeletal Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ. ...S535

**16 : 55 ~ 18 : 15      Symposium 22      Moderators    A. Matsumine, H. Kawashima**  
**Minimally invasive/navigation-assisted treatment for bone and soft tissue tumors**

- 2-4-S22-1 CT-guided curettage and ablation with electrocautery for osteoid osteoma  
 ..... *Satoshi Kamio, et al.*, Dept. of Orthop. Surg., Keio Univ. ...S536
- 2-4-S22-2 Minimally invasive surgery for simple bone cysts  
 ..... *Takashi Higuchi, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ. ...S536
- 2-4-S22-3 Minimally invasive treatment for bone metastases  
 ..... *Hidetatsu Otani, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ. ...S537
- 2-4-S22-4 Minimally invasive surgery in bone and soft tissue tumors using intraoperative navigation  
 ..... *Kunihiro Ikuta, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S537
- 2-4-S22-5 Minimally invasive surgery for bone and soft tissue tumors using navigation system  
 ..... *Yuki Funauchi, et al.*, Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ. ...S538

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**8 : 00 ~ 9 : 20      Symposium 23      Moderators    K. Takamatsu, K. Furushima**  
**Treatment strategies for thoracic outlet syndrome**

- 2-5-S23-1 Surgical results of scalene muscle resection alone for thoracic outlet syndrome  
 ..... *Kazuki Kuniyoshi*, Dept. of Orthop. Surg., Nagareyama Central Hosp. ...S539
- 2-5-S23-2 Endoscopic-assisted infraclavicular approach for first rib resection in thoracic outlet syndrome  
 ..... *Taku Suzuki, et al.*, Dept. of Orthop. Surg., Keio Univ. ...S539
- 2-5-S23-3 The strategy of endoscopic surgery for thoracic outlet syndrome: Indications for release of the scalene muscles  
 ..... *Hiroshi Satake, et al.*, Dept. of Orthop. Surg., Yamagata Univ. ...S540
- 2-5-S23-4 Surgical results of arthroscopically assisted transaxillary approach  
 ..... *Toru Takahashi, et al.*, Keiyu Orthop. Hosp. ...S540
- 2-5-S23-5 Postoperative clinical outcome after combined surgery of transaxillary first rib resection with transcervical anterior and middle scalenectomy for compressive TOS  
 ..... *Keiichi Murata, et al.*, Limb Trauma Center, Nara City Hosp. ...S541

**9 : 35 ~ 10 : 55      Symposium 24      Moderators    H. Ikegami, K. Kikugawa**  
**Reverse shoulder arthroplasty: Indications and future perspectives**

- 2-5-S24-1 Our strategy and outcomes of reverse shoulder arthroplasty  
 ..... *Naomi Oizumi, et al.*, Upper Extremity Center of Joint Replacement and Endoscopic Surg., Hokushin Orthop. Hosp. ...S542
- 2-5-S24-2 Evaluation of clinical outcome and cases with poor clinical outcome after RSA  
 ..... *Nobuyasu Ochiai, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ. ...S542

- 2-5-S24-3 Results and innovations in reverse shoulder arthroplasty  
 .....*Kotaro Yamakado*, Dept. of Orthop. Surg., Fukui General Hosp.···S543
- 2-5-S24-4 Indications and future prospects for reverse shoulder arthroplasty for patients with severe  
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- 2-5-S24-5 Reverse shoulder arthroplasty in Japan: 10 years review and future prospects  
 .....*Naoko Mizuno, et al.*, Dept. of Orthop. Surg., Toyonaka Municipal Hosp.···S544

<b>11 : 10 ~ 12 : 10</b>	<b>Invited lecture 13</b>	<b>Moderator S. Imai</b>
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- 2-5-IL13-1 Range of motion at 6 weeks is an independent risk factor for failure at 6 months after  
 arthroscopic supraspinatus repair  
 .....*Philippe Collin, et al.*, PHC Saint-Grégoire, Saint-Grégoire, France···S545
- 2-5-IL13-2 Japanese perspective of shoulder arthroplasty  
 .....*Hiroyuki Sugaya*, Tokyo Sports & Orthop. Clinic···S545

<b>12 : 40 ~ 13 : 50</b>	<b>Luncheon seminar 16</b>	<b>Moderator K. Okazaki</b>
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- 2-5-LS16 The present state and issue for the treatment of knee osteoarthritis based on the  
 pathophysiology of the disease: Part 2  
 .....*Muneaki Ishijima*, Dept. of Medicine for Orthop. and Motor Organ,  
 Juntendo Univ. Graduate School of Medicine···S546

<b>14 : 05 ~ 15 : 05</b>	<b>Instructional lecture 27</b>	<b>Moderator N. Taniguchi</b>
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- 2-5-EL27-1 Arthroscopic rotator cuff muscle advancement to repair for irreparable massive rotator  
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- 2-5-EL27-2 Surgical technique and indication of arthroscopic superior capsule reconstruction using  
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 .....*Teruhisa Mihata*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ.···S547

<b>15 : 20 ~ 16 : 40</b>	<b>Symposium 25</b>	<b>Moderators H. Hashiguchi, T. Matsumura</b>
<b>Treatment strategies for proximal humerus fractures</b>		

- 2-5-S25-1 Literature review of proximal humeral fractures  
 .....*Satoshi Oki*, Dept. of Orthop. Surg., Saitama City Hosp.···S548
- 2-5-S25-2 Conservative treatment with early motion exercises for proximal humeral fractures  
 .....*Takashi Ishiguro*, Ishiguro Orthop. Clinic···S548
- 2-5-S25-3 Results and limitations of internal fixation for proximal humerus fractures  
 .....*Atsuhiko Mogami*, Dept. of Orthop. Surg., Juntendo Univ. Shizuoka Hosp.···S549
- 2-5-S25-4 Clinical results and limitations of hemiarthroplasty for proximal humerus fractures  
 .....*Yoshiyasu Uchiyama, et al.*, Dept. of Orthop. Surg., Tokai Univ., Hachioji Hosp.···S549
- 2-5-S25-5 Clinical results and limitations of reverse total shoulder arthroplasty for proximal  
 humerus fractures  
 .....*Hideyuki Sasanuma, et al.*, Dept. of Orthop. Surg., Jichi Medical Univ. Hosp.···S550

<b>16 : 55 ~ 18 : 15</b>	<b>Symposium 26</b>	<b>Moderators T. Nakagawa, Y. Mochizuki</b>
<b>Recommended shoulder surgery based on evidence in surgical operations and techniques</b>		

- 2-5-S26-1 Changes in surgical techniques and recommended surgical techniques for proximal  
 humerus fractures  
 .....*Yoshiyasu Uchiyama, et al.*, Dept. of Orthop. Surg., Tokai Univ., Hachioji Hosp.···S551
- 2-5-S26-2 The changes of surgical procedure for acromioclavicular joint dislocation  
 .....*Katsumi Takase*, Dept. of Orthop. Surg., Tokyo Medical Univ.···S551

- 2-5-S26-3 Transition of surgery and recommended technique for the patients with shoulder instability  
 .....*Kenji Hayashida*, Dept. of Orthop. Surg. Osaka Central Hosp.···S552
- 2-5-S26-4 Repairable rotator cuff tear: History, recommended procedure and future direction  
 .....*Hiroyuki Sugaya*, Tokyo Sports & Orthop. Clinic···S552
- 2-5-S26-5 History and surgical treatment for irreparable rotator cuff tears  
 .....*Teruhisa Mihata*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ.···S553

**2nd Day May 24 Room 6**

**8 : 00 ~ 9 : 20 Symposium 27** **Moderators O. Soejima, H. Sakano**  
**Latest insights and future perspectives for thumb carpometacarpal joint arthritis**

- 2-6-S27-1 The change in joint surface stress distribution due to the first metacarpal osteotomy  
 .....*Yusuke Matsuura, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.···S554
- 2-6-S27-2 How do the intermetacarpal ligaments work in total trapeziectomy and suspensionplasty for trapeziometacarpal joint arthritis?: A biomechanical study  
 .....*Junya Hojo, et al.*, Dept. of Orthop. Surg., Otemae Hosp.···S554
- 2-6-S27-3 Changes in functional ROM of the thumb MP joint after arthrodesis of the thumb CM joint for CM joint osteoarthritis  
 .....*Masanori Hayashi, et al.*, Musculoskeletal Health Promotion, Shinshu Univ.···S555
- 2-6-S27-4 Arthroscopy-assisted suture button suspensionplasty for thumb carpometacarpal arthritis  
 .....*Yasuhiro Kiyota, et al.*, Dept. of Orthop. Surg., Keio Univ.···S555
- 2-6-S27-5 A new surgical technique for stage4 trapeziometacarpal arthritis: Core-retaining trapezioplasty  
 .....*Yasunori Hattori, et al.*, Dept. of Orthop. Surg., Ogori Daiichi General Hosp.···S556

**9 : 35 ~ 10 : 35 Invited lecture 14** **Moderator Y. Abe**

- 2-6-IL14-1 Innovations in the treatment of wrist pathologies using arthroscopy  
 .....*Eric Wagner*, UE Center, Dept. of Orthop. Surg., Emory Univ., Atlanta, GA, USA···S557
- 2-6-IL14-2 Distal radius fractures: Current treatments and challenges  
 .....*Satoshi Ichihara*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp.···S557

**10 : 50 ~ 12 : 10 Symposium 28** **Moderators N. Nakagawa, H. Ito**  
**Creation of future wrist and elbow arthroplasty**

- 2-6-S28-1 The future of TEA from the viewpoint of the history of kudo total elbow  
 .....*Mitsuyasu Iwasawa, et al.*, Dept. of Orthop. Surg., Sagami National Hosp.···S558
- 2-6-S28-2 Three-dimensional preoperative planning for elbow and wrist arthroplasty  
 .....*Tomoki Matsuo, et al.*, Dept. of Orthop. Surg., Ogikubo Hosp.···S558
- 2-6-S28-3 Application of augmented reality technology in hand and elbow arthroplasty  
 .....*Atsushi Tanji, et al.*, Dept. of Orthop. Surg., Japanese Red Cross Ashikaga Hosp.···S559
- 2-6-S28-4 Development and clinical application of total wrist arthroplasty  
 .....*Yuichiro Matsui, et al.*, Faculty of Dental Medicine, Hokkaido Univ.···S559
- 2-6-S28-5 Silicone implant arthroplasty for the osteoarthritis of distal interphalangeal joint  
 .....*Satoshi Usami, et al.*, Takatsuki Orthop. Hosp.···S560

**12 : 40 ~ 13 : 50 Luncheon seminar 17** **Moderator T. Kumai**

- 2-6-LS17 Extracorporeal shock wave therapy for osteoarthritis and its combination therapy with autologous protein solution or mesenchymal stem cell therapy  
 .....*Shinya Nakasato, et al.*, N Clinic···S561

14 : 05 ~ 15 : 25 Symposium 29

Moderators K. Kawasaki, Y. Morizaki

**Treatment strategies for scaphoid nonunion**

- 2-6-S29-1 Knowledge update: Review of the latest studies regarding scaphoid non-union  
.....*Kosuke Uehara*, Dept. of Orthop. Surg., Saitama Medical Univ. ...S562
- 2-6-S29-2 Practicability of a volar plate fixation for scaphoid nonunion  
.....*Yuka Kobayashi, et al.*, Dept. of Orthop. Surg., Tokai Univ., Hachioji Hosp. ...S562
- 2-6-S29-3 Treatment strategies for arthroscopic surgery for nonunion of the scaphoid  
.....*Takeshi Sakai, et al.*, Dept. of Orthop. Surg., Showa Univ. Northern Yokohama Hosp. ...S563
- 2-6-S29-4 Risk factors for nonunion in initial surgery for scaphoid nonunion  
.....*Hiroataka Sugiura, et al.*, Dept. of Hand Surg., Musculoskeletal and Cutaneous Surg.,  
Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S563
- 2-6-S29-5 Consideration of failed scaphoid nonunion after bone graft and internal fixation at our hand  
surgery center .....*Akira Hara, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp. ...S564

15 : 40 ~ 16 : 40 Invited lecture 15

Moderator M. Nishiwaki

- 2-6-IL15-1 Diagnosis and management of acute, partial and chronic distal biceps tendon injuries  
.....*Graham King*, Dept. of Surg., Western Univ., London, ON, Canada ...S565
- 2-6-IL15-2 Recent advances in unlinked total elbow arthroplasty in Japan  
.....*Takuji Iwamoto*, Dept. of Orthop. Surg., Keio Univ. ...S565

16 : 55 ~ 18 : 15 Symposium 30

Moderators T. Wada, S. Iwabu

**Fractures around the elbow joint**

- 2-6-S30-1 Treatment for fractures of distal humerus: Past, present and future  
.....*Junya Imatani, et al.*, Dept. of Orthop. Surg., Okayama Saiseikai General Hosp. ...S566
- 2-6-S30-2 Treatment of radial head and neck fractures  
.....*Yusuke Kawano, et al.*, Dept. of Orthop. Surg., Fujita Health Univ. ...S566
- 2-6-S30-3 Surgical treatment of olecranon fractures: Narrative review  
.....*Shiro Moritani*, Dept. of Orthop. Surg., Iwamoto Hosp. ...S567
- 2-6-S30-4 Concept and treatment of complex elbow instability: Understanding the injury mechanism and  
clinical results in cases with coronoid fractures  
.....*Makoto Motomiya, et al.*, Dept. of Orthop. Surg., Obihiro Kosei Hosp. ...S567
- 2-6-S30-5 Treatment of terrible triad injury  
.....*Kensuke Sakai*, Dept. of Orthop. Surg., Omuta City Hosp. ...S568

**2nd Day May 24 Room 7**

8 : 00 ~ 9 : 20 Symposium 31

Moderators M. Deie, K. Kato

**Sports injuries in adolescent: Recent insights into injury prevention**

- 2-7-S31-1 Critical prevention of lumbar spondylolysis: Up-to-date  
.....*Toshinori Sakai, et al.*, Dept. of Orthop.,  
Institute of Biomedical Sciences, Tokushima Univ. Graduate School ...S569
- 2-7-S31-2 Judo disorders in adolescent: Prevention of lumbar spondylolysis  
.....*Takeshi Kamitani, et al.*, Sch. Educ. Tokai Gakuen Univ. ...S569
- 2-7-S31-3 Injury prevention strategy for low back disorders in competitive swimmers  
.....*Koji Kaneoka*, Grad. School of Sport Sciences, Waseda Univ. ...S570

- 2-7-S31-4 Growth-phase sports injuries in baseball: Findings from a five-year medical check-ups of elementary school-aged baseball players in the Nagoya neighborhood  
 ..... *Yusuke Iwahori, et al.*, Sports Med. and Joint Center, Asahi Hosp.···S570
- 2-7-S31-5 The recent prevention methods of the onset of Osgood-Schlatter disease  
 ..... *Atsushi Hirano*, Dept. of Sports Medicine Center, Mito Kyodo General Hosp.···S571
- 2-7-S31-6 Adolescent sports injury in soccer  
 ..... *Shunji Oba, et al.*, Oba Orthop.···S571

**9 : 35 ~ 10 : 35 Instructional lecture 28 Moderator T. Ohe**

- 2-7-EL28 Baseball elbow: From medical check to the latest treatments and research  
 ..... *Kazuki Sato*, Institute for Integrated Sports Medicine, Keio Univ.···S572

**10 : 50 ~ 12 : 10 Symposium 32 Moderators E. Chosa, H. Funasaki**  
**For a healthy and long life: Ensuring safe sports participation:**  
**From non-excessive coaching to the basics of injury prevention**

- 2-7-S32-1 Soccer injury prevention program FIFA 11+: Its application and promotion in Japan  
 ..... *Toru Fukubayashi*, Waseda Univ.···S573
- 2-7-S32-2 How to leverage ukemi ..... *Takeshi Kamitani, et al.*, Sch. Educ. Tokai Gakuen Univ.···S573
- 2-7-S32-3 Player welfare in rugby ..... *Yuji Takazawa*, Dept. of Sports Med., Juntendo Univ.···S574
- 2-7-S32-4 Evolution of coaching from the perspective of baseball medicine  
 ..... *Naotaka Mamizuka*, Baseball & Sports Clinic···S574
- 2-7-S32-5 Ballet for a lifetime: The do's and don'ts ..... *Kakuko Nakamura*, Dr. KAKUKO Sports Clinic···S575
- 2-7-S32-6 Sumo wrestling ..... *Yasuaki Nakagawa, et al.*, Dept. of Orthop. Surg., Baptist Hosp.···S575

**12 : 40 ~ 13 : 50 Luncheon seminar 18 Moderator M. Akagi**

- 2-7-LS18 Possibility of bicruciate-retaining TKA: The harmony of robotic assisted technology  
 ..... *Yasuo Niki, et al.*, Fujita Medical Innovation Center, Fujita Univ., Tokyo···S576

**14 : 05 ~ 15 : 25 Symposium 33 Moderators A. Nakamae, H. Koga**  
**Update on treatment of meniscal injuries**

- 2-7-S33-1 Biomechanics of meniscal injury ..... *Kengo Harato, et al.*, Dept. of Orthop. Surg., Keio Univ.···S577
- 2-7-S33-2 Treatment strategies for meniscal injury: A review of current practices at our center  
 ..... *Daisuke Araki, et al.*, Sport Med. Center, Hyogo Rehab. Center···S577
- 2-7-S33-3 Surgical treatment of meniscus injury accompanied with anterior cruciate ligament injury  
 ..... *Nobutake Ozeki, et al.*, Center for Stem Cell and Regenerative Medicine,  
 Tokyo Medical and Dental Univ.···S578
- 2-7-S33-4 Surgical treatment of the discoid lateral meniscus  
 ..... *Yusuke Hashimoto, et al.*, Dept. of Health and Sport Management,  
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- 2-7-S33-5 Surgical treatment for degenerative meniscus tear  
 ..... *Hiroshi Nakayama, et al.*, Dept. of Orthop. Surg., Hyogo College of Medicine···S579

**15 : 40 ~ 16 : 40 Instructional lecture 29 Moderator T. Ogiuchi**

- 2-7-EL29 Sports physician: Players centered concept and medical team building  
 ..... *Tsukasa Kumai*, Grad. School of Sport Sciences, Waseda Univ.···S580

**16 : 55 ~ 18 : 15      Symposium 34      Moderators   Y. Ishibashi, N. Nakamura**  
**Cutting-edge treatment for sports injuries using regenerative medicine**

- 2-7-S34-1    The role of PRP therapy in lower limb sports injuries  
 ..... *Yoshitomo Saita, et al.*, Dept. of Sports and Regenerative Medicine, Juntendo Univ. ...S581
- 2-7-S34-2    Repeated magnetic resonance imaging at six follow-up visits over a 2-year period after  
 platelet-rich plasma injection with lateral epicondylitis  
 ..... *Taku Suzuki, et al.*, Dept. of Orthop. Surg., Keio Univ. ...S581
- 2-7-S34-3    Intradiscal therapy using platelet-rich plasma for discogenic low back pain  
 ..... *Koji Akeda, et al.*, Dept. of Musculoskeletal Surg.,  
 Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine ...S582
- 2-7-S34-4    The role of synovial stem cells in sports injuries, particularly meniscus injuries  
 ..... *Ichiro Sekiya, et al.*, Center for Stem Cell and Regenerative Medicine,  
 Tokyo Medical and Dental Univ. ...S582
- 2-7-S34-5    Role of cell sheet transplantation in sports injuries  
 ..... *Masato Sato, et al.*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ. ...S583

**2nd Day   May 24   Room 8**

**8 : 00 ~ 9 : 20      Symposium 35      Moderators   Y. Inaba, K. Aoki**  
**The way forward for pediatric orthopaedics in low birthrates and an aging society**

- 2-8-S35-1    Research and medical treatment of the children's hip disease in aging society with  
 declining birthrate ..... *Takuya Otani*, Dept. of Orthop. Surg., The Jikei Univ. Daisan Hosp. ...S584
- 2-8-S35-2    The task of pediatric orthopaedics in scoliosis care in an aging society with a  
 declining birthrate  
 ..... *Toru Yamaguchi*, Dept. of Orthop. and Spine Surg. Fukuoka Children's Hosp. ...S584
- 2-8-S35-3    The way to live as a pediatric orthopaedic surgeon through this declining birthrate and aging  
 society: Bone dysplasia  
 ..... *Keita Okada, et al.*, Dept. of Orthop. Surg., The Univ. of Tokyo Hosp., The Univ. of Tokyo ...S585
- 2-8-S35-4    Paralytic diseases ..... *Takeshi Kinjo*, Dept. of Orthop. Ped. Surg.,  
 Okinawa Prefectural Nanbu Medical Center and Children's Medical Center ...S585
- 2-8-S35-5    Why loco prevention is important from childhood ..... *Etsuo Chosa*, Div. of Orthop. Surg.,  
 Dept. of Medicine of Sensory and Motor Organs, Faculty of Medicine, Univ. of Miyazaki ...S586
- 2-8-S35-6    The future of children's hospital  
 ..... *Katsuaki Taira, et al.*, Dept. of Orthop. Surg., Saitama Children's Medical Center ...S586

**9 : 35 ~ 10 : 35      Instructional lecture 30      Moderator   M. Osaki**

- 2-8-EL30    Diagnosis and treatment of slipped capital femoral epiphysis (SCFE)  
 ..... *Jun Kakizaki*, Dept. of Orthop. Surg., Chiba Children's Hosp. ...S587

**10 : 50 ~ 12 : 10      Symposium 36      Moderators   Y. Sakamoto, T. Kinjo**  
**2nd in the series: "Tips orthopaedists should keep in mind for diagnosis of pediatric orthopaedic  
 diseases"**

- 2-8-S36-1    Diagnosis tips and initial management of congenital muscular torticollis  
 ..... *Yuta Tsukagoshi*, Dept. of Orthop. Surg., Univ. of Tsukuba ...S588
- 2-8-S36-2    Caution is warranted when observing abnormal gait in infants and toddlers, as it may  
 sometimes be linked to serious illnesses ... *Yohei Tomaru*, Chiba Child & Adult Orthop. Clinic ...S588

- 2-8-S36-3 Septic arthritis in children: The essentials of diagnosis and treatment  
 ..... *Yasuhiro Oikawa, et al.*, Dept. of Orthop. Surg., Chiba Children's Hosp. ...S589
- 2-8-S36-4 Diagnostic knack and primary care for Legg-Calve-Perthes disease  
 ..... *Ryosuke Yamaguchi, et al.*, Dept. of Rehab. Medicine, Kyushu Univ. Hosp. ...S589

12 : 40 ~ 13 : 50	<b>Luncheon seminar 19</b>	<b>Moderator A. Sakai</b>
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- 2-8-LS19 Are fractures decreasing in actual clinical practice?: Verifying the effectiveness of osteoporosis treatment from receipt data ..... *Nobukazu Okimoto*, Okimoto Clinic ...S590

14 : 05 ~ 15 : 25	<b>Symposium 37</b>	<b>Moderators M. Ito, H. Yanagida</b>
<b>Current topics and future perspectives on pediatric spinal disorders</b>		

- 2-8-S37-1 Present status and future perspective of treatment for early onset scoliosis  
 ..... *Kota Watanabe*, Dept. of Orthop. Surg., Keio Univ. ...S591
- 2-8-S37-2 Adolescent idiopathic scoliosis in adulthood  
 ..... *Hiroaki Nakashima, et al.*, Dept. of Orthop./Rheumatology,  
 Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,  
 Graduate School of Medicine, Nagoya Univ. ...S591
- 2-8-S37-3 Current status and future perspective of neuromuscular scoliosis  
 ..... *Gen Inoue, et al.*, Dept. of Orthop. Surg., Kitasato Univ. ...S592
- 2-8-S37-4 Treatment and prognosis in adulthood of lumbar spondylolysis  
 ..... *Toshinori Sakai, et al.*, Dept. of Orthop.,  
 Institute of Biomedical Sciences, Tokushima Univ. Graduate School ...S592
- 2-8-S37-5 Treatment strategies for atlantoaxial rotatory fixation and clinical outcomes of remodeling therapy ..... *Ken Ishii, et al.*, New Spine Clinic Tokyo ...S593

15 : 40 ~ 16 : 40	<b>Instructional lecture 31</b>	<b>Moderator A. Torii</b>
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- 2-8-EL31 Appropriate pediatric orthopaedic management: Learning from cases with poor outcomes  
 ..... *Takashi Saisu*, Chiba Child & Adult Orthop. Clinic ...S594

16 : 55 ~ 18 : 15	<b>Symposium 38</b>	<b>Moderators N. Hidaka, A. Seki</b>
<b>Treatment for pediatric supracondylar humeral fractures</b>		

- 2-8-S38-1 Surgical indication of supracondylar humeral fractures in children  
 ..... *Keisuke Nakagawa, et al.*, Dept. of Pediatric Orthop., Osaka City General Hosp. ...S595
- 2-8-S38-2 Surgery for supracondylar humeral fractures in children in supine position  
 ..... *Tatsuhiko Muraoka, et al.*, Dept. of Orthop. Surg., Yonemori Hosp. ...S595
- 2-8-S38-3 Comparative study of postoperative outcomes by body position and surgeon in the treatment of supracondylar humerus fractures in children  
 ..... *Yu Kushima, et al.*, Dept. of Orthop. Surg., National Defense Medical College ...S596
- 2-8-S38-4 Supracondylar humerus fractures in children: Tips for reduction technique  
 ..... *Yasuto Omura, et al.*, Dept. of Orthop. Surg., Saitama Medical Univ. ...S596
- 2-8-S38-5 Nerve injuries associated with displaced supracondylar humeral fractures in children  
 ..... *Naho Nemoto, et al.*, Dept. of Orthop. Surg., Saitama Children's Medical Center ...S597
- 2-8-S38-6 Fishtail deformity as late sequela of pediatric supracondylar fracture of the humerus:  
 Is it preventable?  
 ..... *Shukuki Koh, et al.*, Dept. of Orthop. Surg., Japanese Red Cross Nagoya Daiichi Hosp. ...S597

**2nd Day May 24 Room 9**

**8 : 00 ~ 9 : 20 Symposium 39** **Moderators N. Haraguchi, A. Teramoto**  
**Latest findings and treatment strategies for ankle malleolar fractures**

- 2-9-S39-1 Pathomechanics and pathoanatomy of posterior malleolar fracture  
 .....*Naoki Haraguchi*, Dept. of Orthop. Surg.,  
 St. Marianna Univ. School of Medicine, Yokohama City Seibu Hosp.···S598
- 2-9-S39-2 Anatomy and arthroscopic diagnosis of the syndesmosis injury on ankle malleolar fractures:  
 A cadaveric study·····*Yusuke Shiota*, Dept. of Orthop. Surg., Nishi Nara Central Hosp.···S598
- 2-9-S39-3 Imaging of the distal tibiofibular syndesmosis injury  
 .....*Yasutaka Murahashi, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ.···S599
- 2-9-S39-4 The current trend of osteosynthesis for ankle malleolar fracture  
 .....*Kentaro Matsui, et al.*, Dept. of Orthop. Surg., Teikyo Univ.···S599
- 2-9-S39-5 How to assess and reduce syndesmotic diastasis?  
 .....*Satoshi Yamaguchi, et al.*, Graduate School of Global and Transdisciplinary Studies,  
 Chiba Univ.···S600

**9 : 35 ~ 10 : 35 Instructional lecture 32** **Moderator Y. Tanaka**

- 2-9-EL32 Treatment strategies for foot and ankle sports injuries  
 .....*Takeshi Hashimoto*, Sports Medicine Research Center, Keio Univ.···S601

**10 : 50 ~ 12 : 10 Symposium 40** **Moderators T. Kumai, I. Yoshimura**  
**Considering ankle joint instability: Diagnosis and treatment toward preventing progression into ankle osteoarthritis**

- 2-9-S40-1 Clinical diagnosis of ankle instability  
 .....*Atsushi Teramoto*, Dept. of Orthop. Surg., Sapporo Medical Univ.···S602
- 2-9-S40-2 Imaging diagnosis for lateral ankle ligament injury: To prevent osteoarthritis progression  
 .....*Koji Noguchi, et al.*, Dept. of Orthop. Surg.,  
 Japan Community Health Care Organization, Kurume General Hosp.···S602
- 2-9-S40-3 Conservative treatment to prevent progression to ankle instability and osteoarthritis  
 .....*Tomoko Karube, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine···S603
- 2-9-S40-4 Ligament repair & reconstruction for ankle instability: Perspectives on arthroscopy and the  
 new open approach·····*Youichi Yasui, et al.*, Dept. of Orthop. Surg., Teikyo Univ.···S603
- 2-9-S40-5 Surgical treatment for the ATFL injury with concomitant injuries in patients with chronic lateral  
 ankle instability·····*Tomoyuki Nakasa, et al.*, Dept. of Artificial Joints and Biomaterials,  
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ.···S604

**12 : 40 ~ 13 : 50 Luncheon seminar 20** **Moderator Y. Nakashima**

- 2-9-LS20 Position of acetaminophen in Japanese Orthopaedic Association (JOA) clinical practice  
 guidelines on management of knee osteoarthritis 2023  
 .....*Yuji Uchio*, Dept. of Orthop., Shimane Univ.···S605

**14 : 05 ~ 15 : 25 Symposium 41** **Moderators H. Niki, K. Ikoma**  
**The future of flatfoot diagnosis and treatment**

- 2-9-S41-1 Diagnosis and conservative treatment of flat foot·····*Yui Akiyama, et al.*, Nagaresugi Hosp.···S606
- 2-9-S41-2 Surgical treatment for the flexible flatfoot  
 .....*Noriyuki Kanzaki, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine···S606

- 2-9-S41-3 Clinical outcomes of surgical treatment in patients with progressive collapsing foot deformity  
 .....*Hiroaki Kurokawa, et al.*, Dept. of Orthop. Surg., Nara Medical Univ.··S607
- 2-9-S41-4 Flat foot with forefoot and midfoot contractures: Diagnosis and treatment  
 .....*Hiroaki Shima, et al.*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ.··S607
- 2-9-S41-5 Diagnosis and treatment of flatfoot with hindfoot contracture  
 .....*Makoto Kubota, et al.*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine··S608

**15 : 40 ~ 16 : 40 Instructional lecture 33 Moderator Y. Suda**

- 2-9-EL33 Diagnosis and treatment for Charcot foot  
 .....*Akira Taniguchi*, Dept. of Orthop. Surg., Nara Medical Univ.··S609

**16 : 55 ~ 18 : 15 Symposium 42 Moderators M. Kubota, T. Nakasa  
 Update on treatment of hallux valgus**

- 2-9-S42-1 Hallux valgus: Overview  
 .....*Noriyuki Kanzaki, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S610
- 2-9-S42-2 Pathology and image diagnosis of hallux valgus  
 .....*Tadashi Kimura, et al.*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine··S610
- 2-9-S42-3 Radiographic and clinical results of minimally invasive chevron akin osteotomy for moderate to severe hallux valgus deformities  
 .....*Toshinori Kurashige*, Dept. of Orthop. Surg., Nadogaya Hosp.··S611
- 2-9-S42-4 Shaft osteotomy .....*Makoto Hirao*, Dept. of Orthop., Osaka Minami Medical Center··S611
- 2-9-S42-5 The operative outcome of modified Lapidus procedure for hallux valgus: Approach to severe hallux valgus with lesser toe deformities  
 .....*Tomoko Karube, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine··S612

**2nd Day May 24 Room 10**

**8 : 00 ~ 9 : 00 Instructional lecture 34 Moderator A. Kaneko**

- 2-10-EL34 Targeted therapy for rheumatoid arthritis .....*Yuko Kaneko*, Dept. of Internal Med., Keio Univ.··S613

**9 : 15 ~ 10 : 35 Symposium 43 Moderators M. Takagi, I. Matsushita  
 Locomotive syndrome management in rheumatoid arthritis patients:  
 Looking towards the 100-year life span era**

- 2-10-S43-1 Locomotive syndrome and frailty in patients with rheumatoid arthritis  
 .....*Toshihisa Kojima*, Dept. of Orthop. Surg., Nagoya Medical Center··S614
- 2-10-S43-2 Rheumatoid arthritis and locomotive syndrome: From view of myokine  
 .....*Masahiro Tada*, Dept. of Orthop. Surg., Osaka City General Hosp.··S614
- 2-10-S43-3 Locomotive syndrome in patients with rheumatoid arthritis: A perspective on osteoporosis  
 .....*Kosuke Ebina, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S615
- 2-10-S43-4 Application of the rehabilitation therapy for locomotive syndrome of patients with rheumatoid arthritis .....*Yuya Takakubo, et al.*, Dept. of Orthop. Surg., Yamagata Univ.··S615
- 2-10-S43-5 Prevention of locomotive syndrome in patients with rheumatoid arthritis:  
 Perspective of physicians .....*Yuko Kaneko*, Dept. of Internal Med., Keio Univ.··S616

**10 : 50 ~ 12 : 10 Symposium 44 Moderators K. Hata, Y. Imai  
 Molecular mechanisms of growth plate regulation**

- 2-10-S44-1 Molecular mechanisms controlling growth plate chondrocytes  
 .....*Kenji Hata*, Dept. of Biochemistry, Graduate School of Dentistry, Osaka Univ.··S617

- 2-10-S44-2 Understanding of transcriptional networks in endochondral ossification using mouse and human models  
 .....*Hironori Hojo*, Center for Disease Biology and Integrative Medicine, The Univ. of Tokyo...S617
- 2-10-S44-3 A study of energy metabolism in cartilage  
 .....*Haruhiko Akiyama*, Dept. of Orthop. Surg., Div. of Disease Control, Research Field of Medical Sciences, Graduate School of Medicine, Gifu Univ...S618
- 2-10-S44-4 Epigenetic regulation in growth plate chondrocytes .....*Yuuki Imai*, PROS, Ehime Univ...S618

**12 : 40 ~ 13 : 50 Luncheon seminar 21 Moderator Y. Kadono**

- 2-10-LS21 Long term strategy of rheumatoid arthritis treatment  
 .....*Nobunori Takahashi*, Dept. of Orthop. Surg., Aichi Medical Univ...S619

**14 : 05 ~ 15 : 25 Symposium 45 Moderators S. Fukumoto, S. Tanaka  
 Osteoporosis: Cutting-edge research and latest treatment strategies**

- 2-10-S45-1 Regulatory mechanism of bone remodeling .....*Tomoki Nakashima*, Dept. of Cell Signaling, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ...S620
- 2-10-S45-2 Osteoporosis and regulatory mechanisms of mineral metabolism  
 .....*Seiji Fukumoto*, Tamaki-Aozora Hosp...S620
- 2-10-S45-3 Treatment of osteoporosis by anti-resorptive agents  
 .....*Sakae Tanaka*, Orthop. Surg., Sensory and Motor System Medicine, Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo...S621
- 2-10-S45-4 Recent progress in bone anabolic agents  
 .....*Yasuhiro Takeuchi*, Toranomon Hosp. Endocrine Center...S621
- 2-10-S45-5 Diagnosis of osteoporosis using artificial intelligence and evidence for personalized treatment of osteoporosis with deteriorated bone quality  
 .....*Mitsuru Saito*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine...S622

**15 : 40 ~ 16 : 40 Instructional lecture 35 Moderator K. Nishida**

- 2-10-EL35 Importance of osteoporosis treatment in rheumatoid arthritis patients  
 .....*Yuho Kadono*, Dept. of Orthop. Surg., Saitama Medical Univ...S623

**16 : 55 ~ 17 : 55 Instructional lecture 36 Moderator Y. Uchio**

- 2-10-EL36 An update on the pathophysiology of osteoarthritis and joint pain  
 .....*Masahiko Ikeuchi*, Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ...S623

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**8 : 00 ~ 9 : 00 Instructional lecture 37 Moderator A. Terakado**

- 2-11-EL37 Management and treatment of glucocorticoid-induced osteoporosis  
 .....*Yoshiya Tanaka*, 1st Dept. Int. Med., School of Medicine, Univ. of Occupational and Environmental Health...S624

**9 : 35 ~ 10 : 35 Instructional lecture 38 Moderator T. Tachibana**

- 2-11-EL38 Evidence in spinal cord injury  
 .....*Kota Suda*, Dept. of Orthop. Surg., Hokkaido Spinal Cord Injury Center...S624

**11 : 10 ~ 12 : 10    Instructional lecture 39    Moderator   K. Takeshita**

2-11-EL39    Neurological disorders that orthopedists should be familiar with for differential diagnosis  
 .....*Masahiro Sonoo*, Dept. of Neurol., Teikyo Univ.···S625

**12 : 40 ~ 13 : 50    Luncheon seminar 22    Moderator   Y. Mochida**

2-11-LS22    The technique to early diagnosis and early treatment of rheumatoid arthritis by orthopaedics:  
 The role of ultrasonography and potential of upadacitinib  
 .....*Tadashi Okano*, Center for Senile Degenerative Disorders,  
 Osaka Metropolitan Univ. Graduate School of Medicine···S625

**14 : 05 ~ 15 : 05    Invited lecture 16    Moderator   M. Yamazaki**

2-11-IL16-1    Guidance from the editor of plastic and reconstructive surgery and hand clinics on scientific  
 manuscripts .....*Kevin C. Chung*, Dept. of Surg.,  
 Plastic Surg. and Orthop. Surg., Univ. of Michigan, MI, USA···S626

2-11-IL16-2    How to conduct a randomized controlled trial in Japan  
 .....*Sachiyuki Tsukada*, Dept. of Orthop. Surg., Hokuuikai Kinen Hosp.···S626

**15 : 20 ~ 16 : 40    Symposium 46    Moderators   Y. Watanabe, Y. Tsuchida**  
**Cutting-edge approaches to osteomyelitis**

2-11-S46-1    Localization diagnosis of traumatic osteomyelitis with FDG-PET/CT and reconstruction with  
 external fixation .....*Motoyuki Takaki, et al.*, Dept. of Traumatology, Fukushima Medical Univ.···S627

2-11-S46-2    Novel treatment strategy for chronic osteomyelitis in combination with CLAP  
 .....*Akihiro Maruo*, Dept. of Orthop. Surg., Harima Himeji General Medical Center···S627

2-11-S46-3    Indication and limitation for the treatment of osteomyelitis with Masquelet technique  
 .....*Masao Suzuki, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp.···S628

2-11-S46-4    Effectiveness of bone transport using circular external fixator for osteomyelitis  
 .....*Koji Nozaka, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine···S628

2-11-S46-5    Free vascularized fibula graft for osteomyelitis  
 .....*Yuta Hayashi, et al.*, Dept. of Musculoskeletal Traumatology and Reconstructive Surg.,  
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ.···S629

**16 : 55 ~ 17 : 55    Instructional lecture 40    Moderator   H. Matsumoto**

2-11-EL40    Current trend and problems in ACL injury prevention program  
 .....*Eiichi Tsuda*, Dept. of Rehabilitation Medicine,  
 Hirosaki Univ. Graduate School of Medicine···S630

**2nd Day   May 24   Room 12**

**8 : 00 ~ 9 : 20    Symposium 47    Moderators   S. Iwabu, Y. Anraku**  
**Complications and countermeasures associated with retention and removal of fracture fixation  
 devices**

2-12-S47-1    Status of removal of internal fixation material in Japan  
 .....*Fumio Fukuda*, Dept. of Orthop. Surg., Kitakyushu General Hosp.···S631

2-12-S47-2    Differences in implant removal between Japan and foreign countries: Based on the results of a  
 questionnaire from our affiliated institutions  
 .....*Yukichi Zenke, et al.*, Trauma Recon. Center, UOEH···S631

- 2-12-S47-3 Implant-related complications in the upper extremity  
 ..... *Masao Nishiwaki, et al.*, Hand Center, Dept. of Orthop. Surg., Ogikubo Hosp. ...S632
- 2-12-S47-4 Complications associated with placement and removal of internal fixation materials for fractures and their countermeasures  
 ..... *Tomohiro Matsumura*, Dept. of Emerg. Crit. Care Med., Jichi Medical Univ. ...S632
- 2-12-S47-5 Current situation of difficulties in implant removal and countermeasures  
 ..... *Takashi Maehara*, Dept. of Orthop. Surg., Kagawa Rosai Hosp. ...S633

9 : 35 ~ 10 : 55	<b>Symposium 48</b>	<b>Moderators A. Mogami, N. Takenaka</b>
<b>Modern limb reconstructive surgery</b>		

- 2-12-S48-1 Limb reconstructive surgery for post-traumatic complications  
 ..... *Yoshinobu Watanabe, et al.*, Dept. of Orthop. Surg., Teikyo Univ. ...S634
- 2-12-S48-2 Controlled fibular length for the ankle reconstruction  
 ..... *Kazutaka Otsuka, et al.*, Dept. of Orthop. Surg., Nagasaki Memorial Hosp. ...S634
- 2-12-S48-3 PET/CT-based reconstruction for refractory infected nonunion and osteomyelitis  
 ..... *Nobuyuki Takenaka*, Dept. of Trauma,  
 Fukushima Medical Univ. / Trauma Center of Southern Tohoku Hosp. ...S635
- 2-12-S48-4 Where we are in limb reconstruction for children  
 ..... *Yoshinobu Oka, et al.*, Dept. of Pediatric Orthop.,  
 Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine ...S635
- 2-12-S48-5 Modern reconstruction for severe extremity trauma  
 ..... *Toshiya Kudo*, Trauma Reconstruction Center,  
 Shin-yurigaoka General Hosp. / Dept. of Traumatology, Fukushima Medical Univ. ...S636

11 : 10 ~ 12 : 10	<b>Instructional lecture 41</b>	<b>Moderator Y. Nishii</b>
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- 2-12-EL41 Update on ankle fracture management: Syndesmosis rupture and posterior malleolar fracture  
 ..... *Naoki Haraguchi*, Dept. of Orthop. Surg.,  
 St. Marianna Univ. School of Medicine, Yokohama City Seibu Hosp. ...S637

12 : 40 ~ 13 : 50	<b>Luncheon seminar 23</b>	<b>Moderator R. Kuroda</b>
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- 2-12-LS23-1 New conservative treatment for osteoarthritis of knee joint  
 ..... *Junsuke Nakase*, Dept. of Orthop. Surg.,  
 Graduate School of Medical Sciences, Kanazawa Univ. ...S638
- 2-12-LS23-2 Our experience with Coolief cooled radiofrequency ablation as a new treatment strategy for chronic postsurgical pain after total knee arthroplasty  
 ..... *Masanori Tsubosaka, et al.*, Dept. of Orthop. Surg., Kobe Univ. ...S638

14 : 05 ~ 15 : 25	<b>Symposium 49</b>	<b>Moderators T. Nakamura, M. Tokunaga</b>
<b>Treatment of intra-articular fractures using arthroscopy</b>		

- 2-12-S49-1 Arthroscopic-assisted fixation of glenoid fracture  
 ..... *Noboru Matsumura, et al.*, Dept. of Orthop. Surg., Keio Univ. ...S639
- 2-12-S49-2 Arthroscopic management for distal radius fracture  
 ..... *Yukio Abe*, Dept. of Orthop. Surg., Saiseikai Shimonoseki General Hosp. ...S639
- 2-12-S49-3 The usefulness of wrist arthroscopy for the treatments of scaphoid fracture and nonunion  
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