The 98th Annual Meeting of the Japanese Orthopaedic Association (I)

May 22-25, 2025 Tokyo
Congress President: Norimasa Iwasaki, M.D.
Department of Orthopaedic Surgery, Faculty of Medicine and
Graduate School of Medicine, Hokkaido University

1st Day May 22 Room 1 (TIF, Hall A)

Only sessions marked as "English" will be conducted in English.

9：15～10：15 JOA president lecture — **Moderator N. Iwasaki**

1-1-JPL Past and future of the Japanese Orthopaedic Association
……*Yasuharu Nakashima,* Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.…S1

10：30～11：30 Ambitious lecture 1 — **Moderator Y. Iwamoto**

1-1-AL1 A life to protect and transfer: 50 years as a transplant surgeon……*Satoru Todo,* Hokkaido Univ.…S1

13：25～13：55 Opening ceremony

14：05～14：45 Congress president lecture — **Moderator S. Tanaka**

1-1-PL How research advances orthopaedics……*Norimasa Iwasaki,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.

15：00～16：00 Cultural lecture — **Moderator Y. Toyama**

1-1-CL Aiming for the world top 10……*Kohzo Tashima,* Japan Football Association…S2

16：15～17：15 Ambitious lecture 2 — **Moderator A. Minami**

1-1-AL2 Shaping Japan's future: A vision with the next generation of orthopaedic surgeons
……*Mitsuo Ochi,* Hiroshima Univ.…S2

17：30～18：30 Ambitious lecture 3 — **Moderator K. Yasuda**

1-1-AL3 Lofty ambition and international expansion of developed medical devices
……*Hiroki Shirato,* GCB, Fac. Med., Hokkaido Univ.…S3

1st Day May 22 Room 2 (TIF, Hall C)

8：00～9：00 Instructional lecture 1 — **Moderator H. Hagino**

1-2-EL1 Considering the treatment of osteoporotic vertebral fractures from the perspective of drug selection
……*Naohisa Miyakoshi,* Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine…S3

9：15～10：15 Instructional lecture 2 — **Moderator M. Takaso**

1-2-EL2 Surgical treatment for pediatric intractable spinal deformity
……*Hiroshi Taneichi,* Dept. of Orthop. Surg., School of Medicine, Dokkyo Medical Univ.…S4

10：30 ～ 11：30　Instructional lecture 3　Moderator　J. Takahashi

1-2-EL3　Introduction to case analysis in clinical ethics
……*Shimon Tashiro,* Tohoku Univ.…S4

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

1-2-LS1　Diagnosis and pain management of low back pain related disorders
……*Naosuke Kamei,* Div. of Orthop. Surg., Dept. of Medicine of Sensory and Motor Organs, Faculty of Medicine, Univ. of Miyazaki…S5

15：00 ～ 16：20　Symposium 1　Moderators　T. Miyamoto, H. Terai
Osteoporosis treatment in spine surgery

1-2-S1-1　Cement screws and anchor reinforcement in the treatment of osteoporotic spinal surgery
……*Mitsuru Yagi, et al.,* Dept. of Orthop. Surg., International Univ. of Health and Welfare…S6

1-2-S1-2　Vertebral augmentation for osteoporotic vertebral fractures
……*Daisuke Togawa,* Dept. of Orthop. Surg., Kindai Univ. Nara Hosp.…S6

1-2-S1-3　The role and limitations of drug therapy in spinal surgery for patients with osteoporosis
……*Masahiko Takahata, et al.,* Dept. of Orthop. Surg., Dokkyo Medical Univ.…S7

1-2-S1-4　Rehabilitation for kyphosis with osteoporotic vertebral fractures
…*Michio Hongo, et al.,* Dept. of Physical Therapy, Akita Univ. Graduate School of Health Sciences…S7

1-2-S1-5　Strategy for spinal deformity correction in elderly osteoporosis patients
……*Masahiro Kanayama, et al.,* Dept. of Orthop. Surg., Hakodate Central General Hosp.…S8

16：30 ～ 17：50　Symposium 2　Moderators　O. Shirado, N. Fujita
Brush up on understanding chronic low back pain treatments from the basics

1-2-S2-1　Is really the rate of non-specific low back pain 85% ?
……*Hidenori Suzuki, et al.,* Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine…S9

1-2-S2-2　Sacroiliac joint disorder with diagnostic challenges……*Koji Kaneoka, et al.,* Waseda Univ.…S9

1-2-S2-3　Are Modic change and HIZ the cause of low back pain?: Introducing the diagnostic methods and the latest treatments……*Saori Soeda, et al.,* Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School…S10

1-2-S2-4　Skeletal muscle function and exercise therapy in the elderly
……*Hiromitsu Toyoda,* Dept. of Orthop. Surg., Osaka Metropolitan Univ. Graduate School of Medicine…S10

1-2-S2-5　Technology-based exercise therapy (using apps): A new approach for treating chronic low back pain
……*Kazuhide Inage, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.…S11

1-2-S2-6　Pathological classification for low back pain from the perspective of physical therapists
……*Takaya Narita, et al.,* Graduate School of Spor. Sci., Toin Univ. of Yokohama…S11

1st Day　May 22　Room 3 (TIF, Hall B7(1))

8：00 ～ 9：00　Instructional lecture 4　Moderator　T. Sato

1-3-EL4　Biomechanics of TKA……*Tokifumi Majima,* Dept. of Orthop. Surg., Field of Surg., Nippon Medical School, Graduate School of Medicine…S12

9：15～10：15　Instructional lecture 5　Moderator　A. Yonekura

1-3-EL5　Osteotomies around the knee: Current state and innovation
……*Eiji Kondo,* Centre for Sports Med., Hokkaido Univ.…S12

10：30～11：30　Free papers 1　Moderators　A. Kanamori, Y. Akasaki
Knee: Lower limb alignment

1-3-1　Coronal plane alignment changes of the lower limb and spine in patients with knee osteoarthritis
……*Takashi Aki, et al.,* Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine…S13

1-3-2　The distal tibial plafond slope is approximately parallel to the lateral posterior tibial slope in the sagittal plane……*Shohei Kawakami, et al.,* Dept. of Orthop. Surg., Shodoshima Central Hosp.…S13

1-3-3　Impact of foot width on JLO in full-length bilateral standing radiographs
……*Masaya Nakajo, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S14

1-3-4　The distribution of femoral and tibial coronal alignment in Japan: A multicentric retrospective study of patients with knee osteoarthritis……*Takashi Tsuda, et al.,* Dept. of Orthop. Surg., Ehime Univ. Hosp.…S14

1-3-5　The coronal plane alignment of the knee classification of Japanese population indicates varus deformity tendency compared to the other countries
……*Mitsuaki Kubota, et al.,* Dept. of Orthop., Juntendo Univ.…S15

1-3-6　Deformity analysis and distribution survey of CPAK classification in lateral-type osteoarthritis of the knee……*Hiroki Goto, et al.,* Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine…S15

12：00～13：10　Luncheon seminar 2　Moderator　Y. Ishibashi

1-3-LS2　Conservative treatment for osteoarthritis of knee joint
……*Junsuke Nakase,* Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ.…S16

15：00～16：00　Instructional lecture 6　Moderator　K. Iwasaki

1-3-EL6　Current status and future direction of regenerative medicine: Aiming to realize medical therapy that enhances cell ability……*Yasuhiko Tabata,* Dept. of Plast. and Reconst. Surg., Kyoto Univ.…S16

16：05～17：05　Free papers 2　Knee: OA　Moderators　M. Nakajima, J. Nakase

1-3-7　Continuously agricultural working is a risk for the development of knee osteoarthritis: 15-year general population longitudinal study
……*Eitaro Sato, et al.,* Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine…S17

1-3-8　Knee joint pain is predictor of development of radiographic knee osteoarthritis: A longitudinal study of a large-scale general population
……*Yugo Morita, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.…S17

1-3-9　Synovitis contributes to enlargement of bone marrow lesions in the aged people with primary knee osteoarthritis: The Bunkyo health study……*Jun Shiozawa, et al.,* Dept. of Sports Medicine, Juntendo Univ. School of Sports and Health Science…S18

1-3-10　Cross-sectional study on risk factors for knee osteoarthritis in community health examinations using artificial intelligence
……*Ryo Tomita,* Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine…S18

1-3-11　The efficacy of weight loss induced by oral semaglutide for obese patients with type 2 diabetes and knee OA……*Yoshitaka Toda,* Toda Orthop. Rheumatology Clinic…S19

1-3-12　Three-dimensional lower extremity alignment from a functional orientation during the stance phase of gait in advanced knee osteoarthritis
……*Tatsuya Soeno, et al.,* Dept. of Orthop. Surg., Niigata Medical Center…S19

17：10 ～ 18：30　JOA Directors' proposed symposium 1　Moderators　K. Maemura, H. Kawano
Collaboration between cardiovascular and musculoskeletal systems in the era of 100-year lifespan

1-3-JS1-1　The significance of interdisciplinary activities: Insights from onco-cardiology
……*Hiroshi Akazawa,* Dept. of Cardiovasc. Med., Univ. of Tokyo…S20

1-3-JS1-2　Frailty and sarcopenia in cardiology: Current situation and intervention
……*Kentaro Kamiya,* Dept. of Rehabilitation, Kitasato Univ.…S20

1-3-JS1-3　Locomotive management in cardiac rehabilitation
……*Naoshi Ogata,* Dept. of Rehabilitation Medicine, Teikyo Univ.…S21

1-3-JS1-4　The relationship between cardiovascular disease and locomotive syndrome
……*Yukio Mikami,* Dept. of Rehabilitation Medicine, Hiroshima Univ. Hosp.…S21

1st Day　May 22　Room 4 (TIF, Hall B7(2))

8：00 ～ 9：00　Instructional lecture 7　Moderator　K. Hiraoka

1-4-EL7　Medical education for orthopaedic surgeons: From student to resident
….*Makoto Takahashi,* Center for Medical Education and International Relations, Hokkaido Univ.…S22

9：15 ～ 10：15　Instructional lecture 8　Moderator　S. Fujibayashi

1-4-EL8　Characteristics and roles of biomaterials that you should know in orthopaedic practice
……*Akira Myoui,* Medical Center for Translational Research, Osaka Univ. Hosp.…S22

10：30 ～ 11：30　Free papers 3　Basic reseach 1　Moderators　K. Yamada, K. Maruo

1-4-1　Regulation of angiogenetic factor by epigenetics in patients with ossification of the ligamentous flavum……*Yuya Chosei, et al.,* Dept. of Orthop. Surg., Shiga Univ. of Medical Science…S23

1-4-2　Evaluating the efficiency of early decompression in SCIWORA with moderate contusion: A rat model study
……*Yuki Nagashima,* Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.…S23

1-4-3　Relationship between vector changes of hip joint contact force and hip disease after lumbar spinal fusion
……*Hiroaki Kijima, et al.,* Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine…S24

1-4-4　Syk inhibitor suppresses pathological bone resorption after discontinuation of anti RANKL antibody
……*Hotaka Ishizu, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S24

1-4-5　Genome-wide association study identifies novel susceptibility loci specific to thoracic ossification of the posterior longitudinal ligament……*Yoshinao Koike, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S25

1-4-6　Predicting the development of ossification of posterior longitudinal ligament using polygenetic risk score……*Yoshinao Koike, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S25

12：00 ～ 13：10　Luncheon seminar 3　Moderator　M. Nozaki

1-4-LS3　Tips for successful high tibial osteotomy with prevention of complications
……*Shinichi Kuriyama, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.…S26

15：00～16：20　JOA Directors' proposed symposium 2　Moderators　Y. Tajiri, Y. Shinto
What would you do? When a large number of musculoskeletal disorders occur

1-4-JS2-1　Web training and future prospects at the disaster response committee
……*Tomofumi Ogoshi,* Dept. of Emergency and Disaster Medicine, Tottori Univ.…S27

1-4-JS2-2　Orthopaedic transportation triage
……*Hideto Irifune,* Dept. of Orthop. Surg., Teine Keijinkai Medical Center…S27

1-4-JS2-3　Efforts as an orthopaedic surgeon to prevent disaster-related deaths due to musculoskeletal disorders……*Hidenori Kawamura,* Kawamura Orthop. Hosp.…S28

1-4-JS2-4　Support for musculoskeletal disorders during disasters from the perspective of rehabilitation medicine……*Masao Tomioka,* Amagasaki Daimotsu Hosp.…S28

1-4-JS2-5　The need for coordinators for musculoskeletal disorders in disasters
……*Taketo Kurozumi,* Trauma Center, Toranomon Hosp.…S29

16：30～17：50　Symposium 3　Moderators　H. Akiyama, S. Matsuda
Registry data analysis for THA (total hip arthroplasty) and TKA (total knee arthroplasty) in Japan

1-4-S3-1　The evaluation of usefulness of cement fixation in total hip arthroplasty on Japanese national registry data……*Yasuhiko Takegami, et al.,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S30

1-4-S3-2　The difference in outcomes based on THA approaches
……*Junichi Nakamura, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.…S30

1-4-S3-3　Multicenter analysis of hip arthroplasty from the Japanese investigation committee for osteonecrosis of the femoral head……*Takashi Imagama, et al.,* Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine…S31

1-4-S3-4　Registry data on polyethylene materials and fixation methods in total knee arthroplasty
……*Yukihide Minoda,* Dept. of Orthop. Surg., Osaka Metropolitan Univ. Graduate School of Medicine…S31

1-4-S3-5　Recent trend in TKA alignment/Evidence of new technology including robotic surgery
……*Tomoyuki Matsumoto, et al.,* Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine…S32

1-4-S3-6　Joint arthroplasty registry in Japan
……*Shinichi Kuriyama, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.…S32

1st Day　May 22　Room 5 (TIF, Hall D7)

8：00～9：00　Instructional lecture 9　Moderator　K. Tanaka

1-5-EL9　The current status of osteosarcoma treatment development in Japan
……*Hiroaki Hiraga, et al.,* Dept. of Musculoskeletal Oncol., NHO Hokkaido Cancer Center…S33

9：15～10：15　Instructional lecture 10　Moderator　N. Kawahara

1-5-EL10　Onco-orthopaedics: A novel field for all orthopaedic surgeons to thrive
……*Hirotaka Kawano,* Dept. of Orthop. Surg., Teikyo Univ.…S33

10：30～11：30　Free papers 4　Tumor: Malignant bone tumor　Moderators　A. Ogose, K. Ae

1-5-1　Long-term complications and functional/quality of life outcomes after cementless minimally-invasive extendable endoprosthesis replacement in patients with bone sarcomas
……*Yusuke Tsuda, et al.,* Dept. of Orthop. Surg., The Univ. of Tokyo Hosp., The Univ. of Tokyo…S34

12：00～13：10 Luncheon seminar 4 Moderator S. Tanaka

15：00～16：20 Symposium 4 Moderators M. Mawatari, T. Sakai
The latest insights on idiopathic femoral head necrosis

16：30～17：50 Symposium 5 Moderators K. Seki, H. Asahara
New developments in the network of muscles, tendons, joints, and nerves in motor function expression

1st Day May 22 Room 6 (TIF, Hall D5)

8 : 00 ～ 9 : 00 Free papers 5 Elbow Moderators S. Uchiyama, Y. Nishiura

9 : 15 ～ 10 : 15 Instructional lecture 11 Moderator T. Wada

10 : 30 ～ 11 : 30 Free papers 6 RA: Disease activity Moderators T. Matsubara, K. Maeda

12：00 ～ 13：10　Luncheon seminar 5　Moderators　N. Adachi, H. Ito

15：00 ～ 16：20　Symposium 6　Moderators　H. Niki, M. Takagi
Late-onset rheumatoid arthritis (LORA) and similar diseases

16：30 ～ 17：50　Symposium 7　Moderators　K. Shimada, Y. Iwahori
Treatment strategies for osteochondritis dissecans of the humeral capitellum

1st Day　May 22　Room 7　(TIF, Hall D1)

8：00 ～ 9：00　Free papers 7　Cervical spine　Moderators　Y. Arai, A. Minamide

9：15～10：15 Free papers 8 Lumbar spine 1 Moderators T. Iida, T. Kitagawa

10：30～11：30 Invited lecture 1 (English) Moderator H. Terai

15：00～16：00 Invited lecture 2 (English) Moderator H. Ozawa

16：15～17：15 Invited lecture 3 (English) Moderator M. Koda

17：30～18：30 Invited lecture 4 (English) Moderator J. Takahashi

1st Day May 22 Room 8 (TIF, G701)

8：00 ～ 9：00 Free papers 9 Sports: Miscellaneus Moderators K. Sugimoto, M. Hangai

1-8-1 The relationship between 25(OH) vitamin D concentrations, physical performance, and muscle mass in school-age children: KID locomo study
……*Masatoshi Teraguchi, et al.,* Dept. of Orthop. Surg., Wakayama Medical Univ.…S67

1-8-2 The impact of sport-specific movements on the distribution of type 1 Modic signal changes
……*Saori Soeda, et al.,* Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School…S67

1-8-3 Changes in shoulder joint range of motion in elementary school baseball players
……*Makoto Nagasawa, et al.,* Div. of Orthop. Surg., Dept. of Medicine of Sensory and Motor Organs, Faculty of Medicine, Univ. of Miyazaki…S68

1-8-4 Relationship between shoulder joint range of motion and pitching elbow torque or dominant elbow ultrasound findings in high school pitchers
……*Tomoya Yoshikawa, et al.,* Dept. of Orthop. Surg., Meiwa Hosp.…S68

1-8-5 Difference of graft length in anterior capsular reconstruction of the glenohumeral joint due to arm position: Anatomical study……*Masahito Yoshida, et al.,* Dept. of Musculoskeletal Sports Medicine, Research and Innovation, Nagoya City Univ., Graduate School of Medical Sciences…S69

1-8-6 Clinical significance of posterior talofibular ligament injury in chronic lateral ankle instability
……*Tomoyuki Nakasa, et al.,* Dept. of Artificial Joints and Biomaterials, Graduate School of Biomedical and Health Sciences, Hiroshima Univ.…S69

9：15 ～ 10：15 Free papers 10 Hip: ONFH Moderators M. Nozawa, Y. Maeda

1-8-7 Factors affecting arthropathic changes after anterior rotational osteotomy of the femoral head
……*Hikaru Ito, et al.,* Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.…S70

1-8-8 Relationship between JIC classification and ARCO classification in osteonecrosis of the femoral head
……*Kazuma Takashima, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.…S70

1-8-9 Distribution of nerve growth factor in osteonecrosis of the femoral head
……*Yusuke Ayabe, et al.,* Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.…S71

1-8-10 Short-term outcomes of core decompression for young patients with asymptomatic osteonecrosis of the femoral head……*Yusuke Osawa, et al.,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S71

1-8-11 Characteristics of non-steroid and non-alcohol associated osteonecrosis of the femoral head in a multicenter sentinel monitoring system
……*Yuta Matsuki, et al.,* Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine…S72

1-8-12 Retrospective study on acetabular bone morphology and in patients with type C1 and C2 osteonecrosis of the femoral head
……*Hiroki Kawamata, et al.,* Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine…S72

10：30 ～ 11：30 Invited lecture 5 (English) Moderator N. Nakamura

1-8-IL5-1 Regenerative medicine for cartilage and meniscus injuries
……*Elizaveta Kon,* IRCCS Humanitas Research Hosp., Milan, Italy/Dept. of Biomedical Sciences, Humanitas Univ., Milan, Italy…S73

1-8-IL5-2 Matrix-associated chondrocyte implantation for cartilage defects of the knee joint in Japan: Present status and future direction……*Yuji Uchio,* Dept. of Orthop., Shimane Univ.…S73

12：00 ～ 13：10　Luncheon seminar 6　Moderator　Y. Inagaki

1-8-LS6-1　What is the problem with intra-articular hemorrhage?: Road to build a hemophilic arthropathy outpatient clinic ……*Takuya Tajima,* Div. of Orthop. Surg., Dept. of Medicine of Sensory and Motor Organs, Faculty of Medicine, Univ. of Miyazaki…S74

1-8-LS6-2　Orthopaedic care for hemophilia patients: From prevention of hemophilic arthropathy to prevention of osteoporosis ……*Hitoshi Suzuki,* Dept. of Orthop. Surg., School of Medicine, Univ. of Occupational and Environmental Health…S74

15：00 ～ 16：00　Invited lecture 6　(English)　Moderator　O. Soejima

1-8-IL6-1　Arthroscopic management of scapholunate ligament injuries: The current state of the art ……*Jeffrey Yao,* Dept. of Orthop. Surg., Stanford Univ., Palo Alto, CA, USA…S75

1-8-IL6-2　Advanced arthroscopic repair techniques for TFCC lesions ……*Toshiyasu Nakamura,* Dept. of Orthop. Surg., International Univ. of Health and Welfare…S75

16：15 ～ 17：15　Free papers 11　Hip: Osteotomy　Moderators　Y. Yasunaga, N. Shima

1-8-13　Factors contributing to the progression of osteoarthritis after rotational acetabular osteotomy: 117 hips with a follow-up period of 20-years ……*Yasushi Yoshikawa, et al.,* Dept. of Orthop. Surg., Showa Univ.…S76

1-8-14　Sex differences in hip range of motion and their relationship to bone morphology after eccentric rotational acetabular osteotomy ……*Hiroto Funahashi, et al.,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S76

1-8-15　Does transposition osteotomy of the acetabulum alter the natural history of hip dysplasia? ……*Shiori Tanaka, et al.,* Dept. of Orthop. Surg., Saga Univ.…S77

1-8-16　A 30-year-follow-up outcome of eccentric rotational acetabular osteotomy for hip dysplasia and osteoarthritis ……*Yukiharu Hasegawa, et al.,* Kansai Univ. Health Welfare Sciences…S77

1-8-17　Sagittal plane dynamic joint instability in the postoperative period following transposition osteotomy of the acetabulum ……*Yasushi Yoshikawa, et al.,* Dept. of Orthop. Surg., Showa Univ.…S78

1-8-18　A comprehensive analysis of factors influencing long-term patient-reported outcomes following rotational acetabular osteotomy ……*Takeshi Shoji,* Dept. of Artificial Joints and Biomaterials, Graduate School of Biomedical and Health Sciences, Hiroshima Univ.…S78

17：30 ～ 18：30　Invited lecture 7　(English)　Moderator　Y. Uchio

1-8-IL7-1　Recent development in knee joint biomechanics research and clinical implications ……*Guoan Li,* Orthop. Bioengineering Research Center, Newton-Wellesley Hosp./Massachusetts General Brigham, Boston, MA, USA…S79

1-8-IL7-2　Biomechanical evaluation in ACL reconstruction ……*Tatsuo Mae, et al.,* Dept. of Physical Therapy, Osaka Yukioka Medical College…S79

1st Day　May 22　Room 9　(TIF, G602)

8：00 ～ 9：00　Free papers (English) 1　Upper limb　Moderators　K. Otani, S. Ichihara

1-9-1　Biceps supraspinatus central tendon angle on axial magnetic resonance imaging: Intraoperative guide for the ideal location of rerouted biceps tendon ……*Hyung Lae Cho, et al.,* Dept. of Orthop. Surg., Good Samsun Hosp., Busan, Korea…S80

1-9-2　Postoperative progress evaluation of RSA patients: A comparison of clinician-based assessments and patient-reported outcome measures ……*Yoshihiro Hirakawa, et al.,* Ishikiriseiki Hosp.…S80

1-9-3 Comparison of short-term clinical outcomes of RSA by global lateralization classification using a multi-center research database ……*Yoshihiro Hirakawa, et al.,* Ishikiriseiki Hosp.…S81

1-9-4 Patient satisfaction and donor site morbidity after arthroscopic superior capsule reconstruction using fascia lata autograft for irreparable rotator cuff tears ……*Akihiko Hasegawa, et al.,* Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ.…S81

1-9-5 Ulnar collateral ligament (UCL) shoelace repair with internal bracing is superior to UCL reconstruction for elbow UCL injury ……*Soshi Uchida, et al.,* Dept. of Orthop. Surg., Wakamatsu Hosp. of the Univ. of Occupational and Environmental Health…S82

1-9-6 Strategy for early detecting rapid radiographic progression-importance of MRI bone edema and application for early detection ……*Kou Katayama,* Katayama Orthop. Rheumatology Clinic…S82

9：15～10：15 Free papers (English) 2 Moderators I. Yoshimura, T. Watanabe
Foot & ankle/sports

1-9-7 Anterior cruciate ligament reconstruction with lateral extra-articular tenodesis does not affect the graft maturation based on post-operative 2-year MRI analysis ……*Takeo Tokura, et al.,* Fowler Kennedy Sport Medicine Clinic, London, UK…S83

1-9-8 Machine learning in predicting ACL graft size ……*Zhen Jonathan Liang, et al.,* Yong Loo Lin School of Medicine, National Univ. of Singapore, Singapore, Singapore…S83

1-9-9 Clinical outcomes of hindfoot endoscopic surgery for posterior ankle impingement syndrome with os trigonum in athletes ……*Yuta Matsumae, et al.,* Dept. of Orthop. Surg., Hyogo Medical Univ.…S84

1-9-10 Short-term clinical and radiological outcomes of retrograde drilling for osteochondral lesions of the talus ……*Shota Morimoto, et al.,* Dept. of Orthop. Surg., Hyogo Medical Univ.…S84

1-9-11 Evaluation of Hounsfield unit values of the healthy talar subchondral bones ……*Masashi Nakamura, et al.,* Dept. of Orthop. Surg., Hyogo Medical Univ.…S85

1-9-12 Efficiency of focused extracorporeal shock wave therapy in intramedullary screw fixation for fifth metatarsal stress fractures in high-level athletes ……*Shota Morimoto, et al.,* Dept. of Orthop. Surg., Hyogo Medical Univ.…S85

10：30～11：30 Invited lecture 8 (English) Moderator T. Muneta

1-9-IL8-1 Return to sport after anterior cruciate ligament reconstruction: Psychological factors and re-injury risk ……*Kate E. Webster,* La Trobe Univ. Melbourne, Victoria, Australia…S86

1-9-IL8-2 Rehabilitation after anterior cruciate ligament reconstruction: A multidisciplinary approach ……*Harukazu Tohyama,* Div. of Rehabilitation Science, Dept. of Health Sciences, Faculty of Health Sciences, Hokkaido Univ.…S86

12：00～13：10 Luncheon seminar 7 Moderator K. Tanaka

1-9-LS7 Can orthopaedic surgeons contribute to cancer care? From basic research to clinical practice ……*Eiji Nakata,* Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ.…S87

15：00～16：00 Invited lecture 9 (English) Moderator K. Horiuchi

1-9-IL9-1 Biological reconstruction by pedicle freezing for limb sarcoma ……*Po Kuei Wu,* Center MSK, Taipei Veterans General Hosp., Taipei, Taiwan…S88

1-9-IL9-2 New technologies in bone and soft tissue tumors ……*Toshifumi Ozaki,* Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ.…S88

16：15～17：15　Free papers 12　Moderators　S. Shimose, T. Torigoe
Tumor: Soft tissue sarcoma 1

1-9-13 Clinical outcome in soft tissue sarcoma patients with lung metastasis who received metastasectomy/radiofrequency ablation: Tokai musculoskeletal oncology consortium study
……*Tomoki Nakamura, et al.,* Dept. of Musculoskeletal Surg., Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine…S89

1-9-14 Hematoma formation may be an independent poor prognostic factor for soft tissue sarcoma
……*Tomohisa Sakai, et al.,* Rare Cancer Center, Nagoya Univ. Hosp.…S89

1-9-15 Prognostic factors for malignant fibrous histiocytoma/undifferentiated pleomorphic sarcoma
……*Shinji Miwa, et al.,* Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ.…S90

1-9-16 Lymph node metastasis in myxofibrosarcoma: A single-center retrospective study of 294 cases
……*Hiroya Kondo, et al.,* Dept. of Musculoskeletal Oncology and Rehabilitation, National Cancer Center Hosp.…S90

1-9-17 Which is more important for predicting oncological outcome in invasive soft tissue sarcomas: Radiology or pathology?……*Yuki Funauchi, et al.,* Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Institute of Science Tokyo…S91

1-9-18 Exploration of genomic profiling and prognostic scoring in invasive soft tissue sarcoma
……*Akane Ariga, et al.,* Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Institute of Science Tokyo…S91

17：30～18：30　Free papers 13　Moderators　Y. Kitagawa, E. Osaka
Tumor: Soft tissue sarcoma 2

1-9-19 Epidemiological survey of alveolar soft part sarcoma: Data from the soft tissue tumor registry of Japan……*Akihito Nagano, et al.,* Dept. of Orthop. Surg., Gifu Univ. Hosp.…S92

1-9-20 Establishment of DNA methylation inhibitor-based therapy for synovial sarcoma
……*Nobuhiko Hasegawa, et al.,* Dept. of Orthop., Juntendo Univ.…S92

1-9-21 Proteogenomic analysis revealed prognosis biomarker and therapeutic targets in sarcomas
……*Shuhei Iwata, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.…S93

1-9-22 Comprehensive approach to cancer genomic profiling in sarcomas
……*Eiji Nakata, et al.,* Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ.…S93

1-9-23 Clinical significance of comprehensive genomic profiling tests for bone and soft tissue tumors based on the C-CAT data
……*Satoshi Kamio, et al.,* Div. of Cellular Signaling, National Cancer Center Research Institute…S94

1-9-24 Risk factors of patellofemoral osteoarthritis after distal femur endoprosthesis reconstruction
……*Yuta Taniguchi, et al.,* Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ.…S94

1st Day　May 22　Room 10 (TIF, G610)

8：00～9：00　Free papers (English) 3　Hip joint　Moderators　M. Matsubara, A. Oya

1-10-1 Efficacy of RCDBG for the treatment of ARCO 2 stage ONFH a retrospective case-control study
……*Chao Lu,* Dept. of Joint Surg., Honghui Hosp., Xi'An Jiaotong Univ., Xi'An, China…S95

1-10-2 Return to work status of patients under 65 with ONFH after THA: A retrospective cohort study
……*Yuheng Yan, et al.,* Dept. of Joint Surg., Honghui Hosp., Xi'An Jiaotong Univ., Xi'An, China…S95

1-10-3 Repair critical osteochondral defects on the femoral head using autologous costal cartilage
……*Dajiang Du, et al.,* Shanghai Sixth People's Hosp., Shanghai, China…S96

1-10-4 Patient and hospitalisation predictors of discharge destination for femoral neck fractures in Singapore: A retrospective study
……*Angela Lim, et al.,* Dept. of Orthop. Surg., Changi General Hosp., Singapore, Singapore…S96

1-10-5 Intertrochanteric fracture with severe extramedullary pattern in sagittal plain which require direct reduction……*Etsuo Shoda, et al.,* Dept. of Orthop. Surg., Nishinomiya Watanabe Hosp.…S97

1-10-6 Teriparatide does not have beneficial effects on bone healing in complete atypical femur fractures
……*Keong-Hwan Kim, et al.,* Dept. of Orthop. Surg., College of Medicine Kangwon National Univ., Kangwon National Univ. Hosp., Chuncheon, Korea…S97

9：15～10：15 Free papers (English) 4 Moderators R. Takemasa, S. Ebata
Spine & joint disease

1-10-7 Efficacy of epidural steroid in controlling pain after unilateral biportal endoscopic discectomy for single level lumbar disc herniation: Randomized-controlled trial
……*Waroot Pholsawatchai, et al.,* Dept. of Orthop., Chulabhorn International College of Medicine, Thammasat Univ., Pathumthani, Thailand…S98

1-10-8 The effects and mechanisms of the local high-level uric acid metabolic microenvironment on neuron after traumatic spinal cord injury
……*Zixian Chen, et al.,* Dept. of Orthop. Surg., Zhongshan Hosp., Fudan Univ., Shanghai, China…S98

1-10-9 The patients' quality of life and outcome after surgical treatment for spondylodiscitis: A study using PROMs on 904 Scandinavian patients……*Ryo Fujita, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S99

1-10-10 Long term outcome of surgical management for vertebral hemangioma presenting with myelopathy……*Pankaj K. Singh, et al.,* Dept. of Neurosurg., AIIMS, New Delhi, India…S99

1-10-11 Milk antibody and prebiotic combination improves dysbiosis resulting to amelioration of rheumatoid arthritis through endotoxin masking and endotoxin tolerance
……*Kou Katayama,* Katayama Orthop. Rheumatology Clinic…S100

1-10-12 Factor structure of the WHOQOL-BREF in osteoarthritis patients
……*Patrick Brzoska,* Health Services Research, Faculty of Health, School of Medicine, Witten/Herdecke Univ., Witten, Germany…S100

10：30～11：30 Invited lecture 10 (English) Moderator S. Ohtori

1-10-IL10-1 Spinal cord neural stem cells for spinal cord injury
……*Mark H. Tuszynski,* Dept. of Neurosciences, Univ. of California – San Diego and Veterans Administration Medical Center, La Jolla, CA, USA…S101

1-10-IL10-2 Basic research aimed at elucidating the mechanism of glial scar formation after spinal cord injury……*Kazu Kobayakawa, et al.,* Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.…S101

12：00～13：10 Luncheon seminar 8 Moderator Y. Nakashima

1-10-LS8 Key points in the management of joint pain in elderly patients: Rethinking analgesics from the perspective of risk and benefit……*Makoto Endo,* Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.…S102

15：00～16：00 Invited lecture 11 (English) Moderator M. Ishikawa

1-10-IL11-1 Management of articular cartilage injuries in athletes
……*Brian J. Cole, et al.,* Dept. of Orthop. Surg., Rush Univ. Med. Center, Chicago, IL, USA…S103

1-10-IL11-2 Medial meniscus tears in early knee osteoarthritis: Prevalence and morphology
……*Ichiro Sekiya, et al.,* Center for Stem Cell and Regenerative Medicine, Institute of Science Tokyo…S103

16：15～17：15 Instructional lecture 12 Moderator M. Saito

1-10-EL12 Regulatory mechanism of bone remodeling
……*Tomoki Nakashima,* Dept. of Cell Signaling, Institute of Science Tokyo…S104

17：30～18：30 Free papers (English) 5 Moderators K. Matsumoto, T. Ohnishi
Basic research/miscellaneous

1-10-13 Application of ROS-scavenging composite hydrogel coating in magnesium-based internal fixation for osteoporotic fractures
……*Yuheng Yan,* Dept. of Joint Surg., Honghui Hosp., Xi'An Jiaotong Univ., Xi'An, China…S105

1-10-14 Gelatin-based cryogels seeded with bone mesenchymal stem cell exosomes for enhancing bone regeneration ……*Daniel Yang, et al.,* Lab. of Biomed. Eng., I-Shou Univ., Kaohsiung, Taiwan…S105

1-10-15 Naringin mediated silver nanoparticles attenuate rheumatoid arthritis in mice by modulation of autophagy and PI3K/AKT/mTOR signaling pathway
……*Ekta Yadav,* Shalom Institute of Health and Allied Sciences, Sam Higginbottom Univ. of Agriculture Technology and Sciences, Allahabad, India…S106

1-10-16 Changes in exercise habits and associated factors during COVID-19 pandemic in patients after THA in Japan ……*Takahiro Inoue, et al.,* Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.…S106

1-10-17 A correlation study of bone qualities and spine flexibilities in severe adolescent idiopathic scoliosis
……*Adam Yiu-chung Lau, et al.,* Dept. of Orthop. and Traumatology, The Chinese Univ. of Hong Kong, Hong Kong…S107

1-10-18 Automated SSM landmarking with region-refinement improves landmarking accuracy
……*Marco T. Schneider, et al.,* Formus Labs, Auckland, New Zealand…S107

1st Day May 22 Room JP-A (JP tower, Hall 1+2+3)

8：00～9：00 Free papers 14 Proximal femoral fracture Moderators A. Harada, S. Jingushi

1-A-1 Analysis of risk factors for failure in non-displaced femoral neck fractures using multivariate analysis …*Kazuki Hirose, et al.,* Dept. of Orthop. Surg., Kochi Health Sciences Center…S108

1-A-2 Correlation between bone mineral density and CT value and bone mineral density estimation model in patients with proximal femur fractures ……*Juji Ito, et al.,* Dept. of Orthop. Surg., Nihonkai Hosp.…S108

1-A-3 Comparison of taper wedge versus fit & fill for periprosthetic fracture risk after hemiarthroplasty for femoral neck fractures ……*Makoto Kitade,* Dept. of Orthop. and Rehabilitation Medicine, Faculty of Medical Sciences, Univ. of Fukui…S109

1-A-4 Risk factors for cut-out of internal fixation in proximal femoral fractures
……*Yo Morishita, et al.,* Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine…S109

1-A-5 Clinical outcomes of SL nails for femoral trochanteric fractures: A report on treatment results with and without lateral cortical nothing
……*Hiroyuki Takeuchi, et al.,* Dept. of Orthop. Surg., Hanwa Memorial Hosp.…S110

1-A-6 Examination of achievement of reduction for intertrochanteric fracture (AO 31A3) in cephalomedullary nail ……*Teruhiko Ando, et al.,* Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ.…S110

9：15～10：15　Free papers 15　Moderators　N. Yamamoto, C. Minamitani
Osteoporosis: Diagnosis 1

1-A-7　Radiofrequency echographic multi-spectrometry as a practical alternative for osteoporosis screening in care home residents……*Hotaka Ishizu, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S111

1-A-8　Interaction of age and fatty liver to the spine: Fatty liver in young leading to reduced vertebral bone mineral density……*Yoshinao Koike, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S111

1-A-9　Risk assessment of proximal femur and vertebral fracture risk by osteoporosis screening methods: The LIFE study……*Satoshi Yamate, et al.,* Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.…S112

1-A-10　Development of AI-based software to support quantitative diagnosis of vertebral fracture ……*Shoutaro Arakawa, et al.,* Dept. of Orthop. Surg., The Jikei Univ. School of Medicine…S112

1-A-11　Establishing Japanese osteoporosis equivalent femoral strength using biomechanical CT (E-JOS femoral study) …*Taro Mawatari, et al.,* Dept. of Orthop. Surg., KKR Hamanomachi Hosp.…S113

1-A-12　Skeletal site-specific assessment of the effects of high-intensity mechanical loading during adolescence on bone mineral density 50 years later ……*Atsuto Hoshikawa, et al.,* Dept. of Orthop. Surg., Tohto Bunkyo Hosp.…S113

10：30～11：30　Free papers 16　Osteoporosis: Diagnosis 2　Moderators　H. Samejima, S. Tanaka

1-A-13　Association between vertebral fractures and brain volume: The ROAD Study ……*Koji Nakajima, et al.,* Dept. of Orthop. Surg., The Univ. of Tokyo Hosp., The Univ. of Tokyo…S114

1-A-14　Utility of AI-based bone density measurement using abdominal CT images: A potential alternative to osteoporosis screening ……*Yukinori Tsukuda, et al.,* Dept. of Orthop. Surg., Otaru General Hosp.…S114

1-A-15　Development of a screening tool for detecting osteopenia using OSTA and FRAX ……*Chiaki Horii, et al.,* Inanami Spine and Joint Hosp.…S115

1-A-16　The usefulness of bone density assessment with dual-energy CT: A comparison with DXA ……*Kazuhiro Nishikawa, et al.,* Dept. of Orthop. Surg., Gunma Univ. Hosp.…S115

1-A-17　Factors associated with low bone density in school-age children in a large-scale cohort study: KID locomo study …*Masatoshi Teraguchi, et al.,* Dept. of Orthop. Surg., Wakayama Medical Univ.…S116

1-A-18　More than half of cases of proximal femur fractures are complicated by spinal compression fractures ……*Hayato Tatsumi, et al.,* Dept. of Orthop. Surg., Hiroshima Prefectural Hosp.…S116

12：00～13：10　Luncheon seminar 9　Moderator　S. Imai

1-A-LS9　A bioinductive collagen implant used in arthroscopic rotator cuff repair ……*Kotaro Yamakado,* Dept. of Orthop. Surg., Fukui General Hosp.…S117

15：00～16：00　Instructional lecture 13　Moderator　K. Takahashi

1-A-EL13　Ethics in conducting clinical education and research activities using human cadavers and key aspects of operating a cadaver lab ……*Toshiaki Shichinohe,* Hokkaido Univ. Hosp. Center for Education Research & Innovation of Advanced Medical Technology, Gastroenterological Surg. II…S117

16：15～17：35　Symposium 8　Moderators　A. Mogami, E. Tsuda
How advances in orthopaedic trauma surgery have changed rehabilitation treatment?

1-A-S8-1　Treatment and rehabilitation for severe pelvic trauma
……*Daisuke Koga,* Dept. of Orthop. Surg., Japanese Red Cross Saitama Hosp.…S118

1-A-S8-2　Updates the treatment and rehabilitation for fragility fractures
……*Takenori Uehara, et al.,* Dept. of Orthop. Surg., NHO Okayama Medical Center…S118

1-A-S8-3　The latest treatment of periprosthetic fractures and the rehabilitation therapy
……*Takahiro Niikura,* Dept. of Orthop. Surg., Hyogo Prefectural Nishinomiya Hosp.…S119

1-A-S8-4　Surgical treatment and rehabilitation for nonunion and malunion
……*Tomohiro Matsumura,* Dept. of Emergency and Critical Care Med., Jichi Medical Univ.…S119

1-A-S8-5　Functional reconstruction and rehabilitation for severe upper extremity trauma
……*Kenji Kawamura, et al.,* Susumu Tamai Memorial Limb Trauma Center, Nara Medical Univ. Hosp.…S120

17：40～18：30　Free papers 17　Moderators　K. Okajima, H. Yamada
Miscellaneous: Muscle/nerve

1-A-19　A distribution of the muscle mass of limb associates standing whole-body imbalance
……*Jun Ouchida, et al.,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S121

1-A-20　Quadriceps muscle mass and muscle quality and locomotive syndrome
……*Takafumi Mizuno, et al.,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S121

1-A-21　A new skeletal muscle index for older adults with declining gait function: Muscle quality
……*Yoshihito Sakai, et al.,* Dept. of Orthop. Surg., National Center for Geriatrics and Gerontology…S122

1-A-22　The utility of artificial intelligence-enhanced ultrasound imaging for nerve visualization in the brachial plexus……*Kazuma Miyatake, et al.,* Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine…S122

1-A-23　Anatomical analysis of the S1 neural foramen using 3D CT images
……*Noritaka Suzuki, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.…S123

1st Day　May 22　Room JP-B (JP tower, Conference Room A)

8：00～9：00　Free papers 18　ACL 1　Moderators　S. Horibe, N. Kitamura

1-B-1　Anatomical risk factors for noncontact ACL injury in female athletes
……*Yusuke Kamatsuki, et al.,* Dept. of Orthop. Surg., Okayama Saiseikai General Hosp.…S124

1-B-2　The meniscal bone angle in unaffected side of the knee in anterior cruciate ligament injured patients……*Sora Koiwa,* JR Tokyo General Hosp.…S124

1-B-3　The correlation between ACL mid-substance cross sectional area and femoral intercondylar notch area……*Takanori Iriuchishima,* Dept. of Orthop. Surg., Keijinnkai Shiroyama Hosp.…S125

1-B-4　Comparative study of maturation in hamstring tendon and quadriceps tendon following anterior cruciate ligament reconstruction: Insights from MRI-UTE T2* mapping
……*Naoki Takemoto, et al.,* Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ.…S125

9：15～10：15 Free papers 19 ACL 2 Moderators T. Soejima, M. Nagashima

10：30～11：30 Free papers 20 Sports: Knee Moderators Y. Arai, H. Aoki

12：00～13：10 Luncheon seminar 10 Moderator H. Ishibashi

15：00 ～ 16：00　Instructional lecture 14　Moderator　E. Tsuda

1-B-EL14　History and future of research in locomotor system biomechanics: From search and hypothesis verification to data-driven research with RWD/AI
……*Ken Nakata,* Medicine for Sports and Performing Arts, Dept. of Health and Sport Science, Graduate School of Medicine, Osaka Univ.…S133

16：15 ～ 17：15　Free papers (English) 6　Knee　Moderators　S. Fukushima, G. Mitani

1-B-19　Clinical and radiologic outcomes of MPFL reconstruction versus MPFL reconstruction with concomitant tibial tubercle transfer in patients with patellar instability
……*Yu- Chuan Weng, et al.,* Dept. of Medical Education and Research, Kaohsiung Veterans General Hosp., Kaohsiung City, Taiwan…S134

1-B-20　Transcatheter arterial embolization of abnormal neovessels for patellar tendinopathy is safe: A 7-year follow-up study with 89 patients……*Yuji Okuno, et al.,* Okuno Clinic.…S134

1-B-21　Coronal plane alignment of the knee (CPAK) type III valgus knee exhibits lateral pivot motion during squatting……*Junya Itou, et al.,* Dept. of Orthop. Surg., Tokyo Women's Medical Univ.…S135

1-B-22　Varus alignment affects femoral cartilage and meniscus extrusion: No correlation with tibial cartilage……*Satomi Abe, et al.,* Dept. of Orthop. Surg., Asahikawa Medical Univ.…S135

1-B-23　Development and clinical application of multifunctional positioning device for the distal femoral closing wedge osteotomy……*Chuan Ye, et al.,* Dept. of Orthop. Surg., The Affiliated Hosp. of Guizhou Medical Univ., Gui Yang, China…S136

1-B-24　Comparative study of biplanar HTO and APTT-HTO in treatment of knee osteoarthritis
……*Chuan Ye, et al.,* Dept. of Orthop. Surg., The Affiliated Hosp. of Guizhou Medical Univ., Gui Yang, China…S136

17：30 ～ 18：30　Free papers (English) 7　THA & TKA　Moderators　H. Miyahara, T. Yasuda

1-B-25　AI segmentation in clinically relevant complex orthopaedic cases: A targeted study on developmental dysplasia of the hip (DDH)
……*Marco T. Schneider, et al.,* Formus Labs, Auckland, New Zealand…S137

1-B-26　Automated hip-spine assessments in under a second
……*Marco T. Schneider, et al.,* Formus Labs, Auckland, New Zealand…S137

1-B-27　The trend of revision total hip arthroplasties in super-aging area in last eighteen years
……*Ryota Kato, et al.,* Dept. of Orthop. Surg., Yamagata Univ. Hosp.…S138

1-B-28　Evaluating tibial component rotational alignment after total knee arthroplasty using augmented reality navigation system with smart glasses
……*Takayuki Koya, et al.,* Dept. of Orthop. Surg., Showa Univ. Koto Toyosu Hosp.…S138

1-B-29　Efficacy of the image free robotic assisted technology in predicting the accurate implant sizes during robotic assisted total knee arthroplasty
……*Sanjay B. Londhe, et al.,* Dept. of Orthop. Surg., Criticare Asia Hosp., Mumbai, India…S139

1-B-30　Factors affecting return to work status after total joint arthroplasty: A prospective cohort study
……*Yuheng Yan, et al.,* Dept. of Joint Surg., Honghui Hosp., Xi'An Jiaotong Univ., Xi'An, China…S139

1st Day　May 22　Room JP-C　(JP tower, Conference Room B)

8：00 ～ 9：00　Free papers 21　AI: Upper & lower limb　Moderators　H. Mishima, K. Oka

1-C-1　Development of android camera application for automated measurement of hallux valgus angle
……*Ryutaro Takeda, et al.,* Dept. of Orthop. Surg., The Univ. of Tokyo Hosp., The Univ. of Tokyo…S140

9：15～10：15 Free papers 22 AI: Miscellaneous Moderators Y. Aoki, Y. Hagiwara

10：30～11：30 Free papers 23 AI: Lumbar spine Moderators K. Nakanishi, S. Orita

12：00 ～ 13：10　Luncheon seminar 11　Moderator　R. Kuroda

1-C-LS11-1　The practical clinical experience of novel cooling radiofrequency treatment for knee osteoarthritis ……*Masami Tokunaga,* Fukuoka Orthop. Hosp.…S149

1-C-LS11-2　Latest topics leveraging artificial intelligence ……*Kazuma Miyatake,* Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine…S149

15：00 ～ 16：00　Instructional lecture 15　Moderator　R. Osada

1-C-EL15　Anatomical findings in joints of upper extremity: Ligaments revisited ……*Akimoto Nimura,* Dept. of Functional Joint Anatomy, Biomedical Engineering Laboratory, Institute of New Industry Incubation, Institute of Science Tokyo…S150

16：15 ～ 17：15　Free papers 24　Rotator cuff tear 1　Moderators　H. Hashiguchi, N. Ochiai

1-C-19　Results of arthroscopic rotator cuff repair with G-CSF administration ……*Ryosuke Miyamoto, et al.,* Dept. of Orthop. Surg., Gunma Univ. Graduate School of Medicine…S151

1-C-20　Impact of scaffolded anchors on pain and motion recovery after rotator cuff repair ……*Yuta Konno, et al.,* Dept. of Orthop. Surg., Kitasato Univ.…S151

1-C-21　Postoperative outcomes of rotator cuff repair with PGA reinforcement on the footprint ……*Yusuke Kawasaki, et al.,* Dept. of Orthop. Surg., Hiroshima Citizens Hosp.…S152

1-C-22　The effect of bioinductive collagen implant on tendon thickness after arthroscopic rotator cuff repair ……*Yuji Yamaguchi, et al.,* Dept. of Orthop. Surg., Dokkyo Medical Univ.…S152

1-C-23　The effect of bioinductive collagen implant on arthroscopic medial advancement of footprint ……*Hideki Kinjo, et al.,* Dept. of Orthop. Surg., Kaisei Hosp.…S153

1-C-24　Tendon stump changes as a risk factor for structural failure of arthroscopic rotator cuff repair ……*Jun Kawamata, et al.,* Dept. of Orthop. Surg., NHO Kochi Hosp.…S153

17：30 ～ 18：30　Free papers 25　Rotator cuff tear 2　Moderators　Y. Shibata, T. Takizawa

1-C-25　Preoperative nutritional status impacts retear after arthroscopic rotator cuff repair in the elderly ……*Hitoshi Shitara, et al.,* Dept. of Orthop. Surg., Gunma Univ. Graduate School of Medicine…S154

1-C-26　Risk factors and clinical outcomes of osteoarthritis after arthroscopic rotator cuff repair ……*Yohei Harada, et al.,* Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ.…S154

1-C-27　Mid/long-term outcomes of rotator cuff repair and reconstruction using the surface holding method ……*Takahiro Mita, et al.,* Dept. of Orthop. Surg., Asahikawa Medical Univ.…S155

1-C-28　Study of re-tear rates in ARCR with muscle advancement based on Stump classification ……*Yusuke Mori, et al.,* Dept. of Orthop., Baba Memorial Hosp.…S155

1-C-29　Comparison of triple row technique and suture bridge technique in arthroscopic rotator cuff repair based on Stump classification ……*Koji Akimoto, et al.,* Dept. of Orthop. Surg., Chiba Rosai Hosp.…S156

1-C-30　Treatment results of arthroscopic partial rotator cuff repair for 3-tendon massive rotator cuff tears ……*Yutaka Mifune, et al.,* Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine…S156

2nd Day　May 23　Room 1 (TIF, Hall A)

8：00 ～ 9：20　Symposium 9　Moderators　T. Aizawa, T. Yoshii
New strategies for treating ossification of the spinal ligaments

2-1-S9-1　Evidence of distribution of ossified lesions in OPLL patients and introduction of the novel anterior decompression using floating method …*Takashi Hirai, et al.,* Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Institute of Science Tokyo…S157

15：20～16：40 Symposium 12 Moderators K. Sairyo, K. Ishii
The latest in minimally invasive endoscopic spinal fusion surgery

16：55～17：55 Instructional lecture 17 Moderator H. Yamada

2nd Day May 23 Room 2 (TIF, Hall C)

8：00～9：20 Symposium 13 Moderators T. Tajima, A. Nakamae
Comparison of ACL reconstruction techniques

9：25～10：45 Symposium 14 Moderators T. Kamimura, T. Nakagawa
The cutting edge of meniscal surgery

11：00～12：00 Instructional lecture 18 Moderator H. Horiuchi

12：30～13：40 Luncheon seminar 13 (English) **Moderator S. Matsuda**

13：55～15：15 Symposium 15 Moderators K. Okazaki, Y. Niki
Characteristics of robot-assisted and computer navigated TKA (total knee arthroplasty)

15：20 ～ 16：40　Symposium 16　Moderators　T. Majima, M. Ishikawa
Considering alignment in TKA (total knee arthroplasty)

16：55 ～ 17：55　Instructional lecture 19　Moderator　H. Miura

2nd Day　May 23　Room 3　(TIF, Hall B7(1))

8：00 ～ 9：20　Symposium 17　Moderators　E. Chosa, S. Otsuki
The role of orthopaedic surgeons in professional sports

9：25 ～ 10：45　Symposium 18　Moderators　T. Masatomi, T. Mihata
Treatment strategies for medial collateral ligament injuries of the elbow in baseball players

2nd Day May 23 Room 4 (TIF, Hall B7(2))

8：00～9：20 Symposium 21 Moderators Y. Inaba, M. Takao
The pros and cons of computer-assisted hip surgery

9：25～10：45 Symposium 22 Moderators H. Sugiyama, A. Kanaji
Pros and cons revealed by hip arthroscopy in hip treatment

11：00～12：00 Instructional lecture 22 Moderator M. Hasegawa

12：30～13：40 Luncheon seminar 15 Moderator K. Fukushima

13：55～15：15 Symposium 23 Moderators T. Sawaguchi, A. Mogami
Challenges and treatments for insufficiency peri-hip fractures

15：20～16：40 Symposium 24 Moderators H. Ito, K. Goto
Revisiting the past to understand the present in artificial hip joints

16：55～17：55 Instructional lecture 23 Moderator A. Kaneuji

2nd Day May 23 Room 5 (TIF, Hall D7)

8：00～9：20 Symposium 25 Moderators S. Imai, K. Kikugawa
Pathophysiology and treatment strategy for frozen shoulder

9：25～10：45 Symposium 26 Moderators A. Hara, Y. Shimizu
Integrating upper limb function reconstruction methods with robotics

2nd Day May 23 Room 6 (TIF, Hall D5)

8：00 ～ 9：20 Symposium 29 Moderators H. Kato, M. Amako
Latest evidence on idiopathic anterior and posterior interosseous nerve palsy

9：25 ～ 10：45 Symposium 30 Moderators H. Ishikawa, N. Nakagawa
The latest in total wrist arthroplasty

11：00 ～ 12：00 Instructional lecture 26 Moderator K. Iba

12：30 ～ 13：40 Luncheon seminar 17 Moderator G. Inoue

13：55～15：15　Symposium 31　Moderators　K. Ikeda, H. Tanaka
Linking basic and clinical research in peripheral nerve regeneration

15：20～16：40　Symposium 32　Moderators　T. Masatomi, A. Sakai
Technological innovations in hand surgery

16：55～17：55　Instructional lecture 27　Moderator　K. Ikeda

2nd Day　May 23　Room 7

8：00～9：00　Free papers 26　Idiopathic scoliosis 1　Moderators　T. Tsuji, M. Miyagi

9：25～10：25 Free papers 27 Idiopathic scoliosis 2 Moderators T. Hirano, H. Nojiri

11：00～12：00 Free papers 28 Lumbar spine 2 Moderators H. Ataka, T. Nikaido

12：30～13：40　Luncheon seminar 18　Moderator　S. Tanaka

2-7-LS18　Diagnosis and medication of rheumatic diseases that orthopaedic surgeons should know
……*Shuji Asai,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S252

13：55～14：55　Free papers 29　Lumbar spine 3　Moderators　Y. Murata, T. Tetsunaga

2-7-19　10-year follow-up study of the phase III trial of condoliase for patients with lumbar disc herniation
……*Tomohiro Banno, et al.,* Div. of Surg. Care, Morimachi, Hamamatsu Univ. School of Med.…S253

2-7-20　Advantages of chondriase therapy: Real world data analysis using insurance practice database
……*Naoki Segi, et al.,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S253

2-7-21　Safety and efficacy of mirogabalin add-on NSAIDs for peripheral neuropathic pain by lumbar spinal stenosis: Post hoc analysis of MiroTAS
……*Takuya Nikaido, et al.,* Dept. of Orthop. Surg., Fukushima Medical Univ.…S254

2-7-22　Effect of lumbar body morphology on radiographic stenosis and symptomatic stenosis in the lumbar spinal canal……*Kusushi Murai, et al.,* Dept. of Orthop. Surg., Wakayama Medical Univ.…S254

2-7-23　Investigation of the insertion route for ultrasound-guided L5 nerve root block
……*Fumihito Kasama, et al.,* Akita Kosei Medical Center…S255

2-7-24　Longitudinal outcomes of trans-sacral canal plasty (TSCP) and comparative study with conventional lumber surgery
……*Takeshi Inoue, et al.,* Dept. of Orthop. Surg., The Jikei Univ. Katsushika Medical Center…S255

15：20～16：20　Free papers 30　Spine osteoporosis 1　Moderators　E. Nakamura, T. Tomita

2-7-25　Comparison of Hounsfield unit and MRI-based vertebral bone quality score in assessing the risk of AVF after BKP……*Koji Matsumoto, et al.,* Dept. of Orthop. Surg., Nihon Univ.…S256

2-7-26　Effect of pharmacological treatment on osteoporotic vertebral fractures in late-stage elderly patients (J-BOLD study): Retrospective cohort study using large-scale database
……*Toshio Nakamae, et al.,* Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ.…S256

2-7-27　Investigation of the safety and effectiveness of balloon kyphoplasty for osteoporotic vertebral fractures in very elderly patients
……*Kento Watanabe, et al.,* Dept. of Orthop. Surg., Iga City General Hosp.…S257

2-7-28　Low back pain following osteoporotic vertebral fracture: Multivariate analysis of factors related to residual pain after hospitalized conservative treatment
……*Yosuke Takeichi, et al.,* Dept. of Orthop. Surg., National Center for Geriatrics and Gerontology…S257

2-7-29　MRI-based vertebral bone quality score can predict the subsequent vertebral fracture after acute osteoporotic vertebral fractures
……*Mitsuru Asukai, et al.,* Dept. of Orthop. Surg., Kikugawa General Hosp.…S258

2-7-30　The impact of bed rest duration on patients with osteoporotic thoracolumbar vertebral fractures: Pain reduction at discharge and clinical outcomes
……*Hiroki Ushirozako, et al.,* Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine…S258

16：55～17：55　Free papers 31　Moderators　T. Arizono, S. Nakajo
Spine osteoporosis 2/spinal infection

2-7-31　Development and evaluation of diagnostic accuracy of an osteoporotic vertebral fracture detection model based on plain radiographs
……*Tomonori Morita, et al.,* Dept. of Orthop. Surg., Sapporo Medical Univ.…S259

2nd Day May 23 Room 8 (TIF, G701)

8：00～9：00 Instructional lecture 28 Moderator M. Matsumoto

9：25～10：45 Symposium 33 Moderators T. Otani, S. Mitani
The forefront of pediatric hip diseases

11：00～12：00 Instructional lecture 29 Moderator H. Tsuchiya

12：30～13：40 Luncheon seminar 19 Moderator T. Sakai

13：55～15：15 Symposium 34 Moderators Y. Oka, D. Takahashi
Treatment options for correcting pediatric deformities

15：20～16：40 Symposium 35 Moderators A. Seki, T. Kinjo
Aiming for a society free of complete hip dislocations at the onset of walking: Current status and challenges

16：55～17：55 Instructional lecture 30 Moderator M. Kamegaya

2nd Day May 23 Room 9 (TIF, G602)

8：00～9：00 Free papers 32 Knee: TKA & UKA 1 Moderators T. Tomita, R. Gejo

9：25～10：25 Free papers 33 Knee: TKA & UKA 2 Moderators K. Ryu, H. Inui

11：00～12：00 Free papers 34 Knee: TKA & UKA 3 Moderators A. Kobayashi, K. Harato

12：30～13：40 Luncheon seminar 20 Moderator H. Ikeda

13：55～14：55　Free papers 35　Knee: Osteotomy 1　Moderators　K. Kumagai, M. Itoh

2-9-19 Comparison of radiological changes of lateral compartment in knee joint after open-wedge and closed-wedge knee osteotomy for medial knee osteoarthritis
……*Kenji Nakamura, et al.,* Dept. of Orthop., Juntendo Univ.…S283

2-9-20 The influence of tibial curvature in around knee osteotomy
……*Hiroshi Nakamura, et al.,* Dept. of Orthop. Surg., Kikugawa General Hosp.…S283

2-9-21 The influence of meniscus and leg alignment on the distribution of subchondral bone density across the knee joint ….*Koji Iwasaki, et al.,* Dept. of Functional Reconstruction for the Knee Joint, Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S284

2-9-22 Changes of subchondral bone mineral density distribution after high tibial osteotomy
……*Yoshiaki Hosokawa, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S284

2-9-23 Influence of medial meniscus extrusion on the postoperative cartilage regeneration after open wedge high tibial osteotomy
……*Eiji Sasaki,* Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine…S285

2-9-24 In proximal tibial anterior closing wedge osteotomy lower starting points imply larger bone resection: Simulation study……*Youngji Kim, et al.,* Dept. of Orthop., Juntendo Univ.…S285

15：20～16：20　Free papers 36　Knee: Osteotomy 2　Moderators　E. Nakamura, N. Gomi

2-9-25 Investigation of factors affecting changes in the joint line convergence angle in medial open wedge high tibial osteotomy
……*Hikaru Soneda, et al.,* Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine…S286

2-9-26 Knee joint-line obliquity after double level osteotomy
……*Akira Kawai, et al.,* Dept. of Orthop. Surg., Hyogo Medical Univ.…S286

2-9-27 Postoperative outcomes of distal tuberosity osteotomy combined with meniscal pullout repair in knee osteoarthritis with medial root tear
……*Kazuaki Kawasaki,* Dept. of Orthop. Surg., Hyogo Rehabilitation Center Hosp.…S287

2-9-28 The mid- to long-term influence of preoperative medial meniscal extrusion on the whole leg alignment after high tibial osteotomy
……*Kazushi Horita, et al.,* Dept. of Orthop. Surg., Sapporo Medical Univ.…S287

2-9-29 Evaluation of outcome of “Acute oblique osteotomy and ligation procedure” performed with inverted V-shaped HTO: Multicentric study with 231 cases
……*Dai Sato, et al.,* Dept. of Orthop. Surg., Yagi Orthop Hosp.…S288

2-9-30 Evaluation of accuracy and efficacy of inverted V-shaped high tibial osteotomy using the wedge-shaped bone saw blade (MK wedge blade)
……*Masafumi Itoh, et al.,* Dept. of Orthop. Surg., Tokyo Women’s Medical Univ.…S288

16：55～17：55　Free papers 37　Knee: Ligament　Moderators　T. Otani, H. Ogawa

2-9-31 Efficacy of combined ACL and all reconstruction for severe knee instability: Quantitative evaluation under anesthesia……*Shunta Hanaki, et al.,* Dept. of Orthop. Surg., Nagoya City Univ. Hosp.…S289

2-9-32 Combined ACL and all reconstruction improves knee stability and enhances meniscal healing: Second look arthroscopic evaluation
……*Shunta Hanaki, et al.,* Dept. of Orthop. Surg., Nagoya City Univ. Hosp.…S289

2-9-33 Factors influencing medial patellar stiffness after medial patellofemoral ligament (MPFL) reconstruction……*Takuya Wakatsuki, et al.,* Dept. of Orthop., Shimane Univ.…S290

2nd Day May 23 Room 10 (TIF, G610)

8：00～9：20 Symposium 36 Moderators Y. Mochida, K. Nishida
Current status and challenges of joint-preserving surgery for rheumatoid arthritis

9：25～10：25 Free papers 38 RA: Medication Moderators O. Obayashi, Y. Nagaya

11：00 ～ 12：00　Instructional lecture 31　Moderator T. Oda

2-10-EL31 How to diagnose and treat spondyloarthritis: Psoriatic arthritis and axial spondyloarthritis
……*Yuho Kadono,* Dept. of Orthop. Surg., Saitama Medical Univ.…S298

12：30 ～ 13：40　Luncheon seminar 21　Moderator N. Takahashi

2-10-LS21-1 Treatment for rheumatoid arthritis in the super-aging society: The impact of rehabilitation therapy……*Yuya Takakubo, et al.,* Dept. of Orthop. Surg., Yamagata Univ.…S299

2-10-LS21-2 Key points and pitfalls in the treatment of elderly patients with rheumatoid arthritis that orthopaedic surgeons should be aware of
……*Kosuke Ebina, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.…S299

13：55 ～ 15：15　Symposium 37　Moderators I. Matsushita, K. Nishida
Timing of upper and lower limb surgery in rheumatoid arthritis

2-10-S37-1 Effective selection of shoulder surgery in patients with rheumatoid arthritis
……*Katsuaki Kanbe,* Nippori Orthop. and Rheumatic Clinic…S300

2-10-S37-2 Optimal timing for surgical intervention in elbow joint complications of rheumatoid arthritis
……*Yoshihisa Nasu, et al.,* Dept. of Orthop. Surg., Okayama City Hosp.…S300

2-10-S37-3 Surgical approach and optimal timing of surgery for rheumatoid arthritis of the wrist in our department……*Yuichiro Matsui, et al.,* Faculty of Dental Medicine, Hokkaido Univ.…S301

2-10-S37-4 Best timing for RA hip surgery
……*Shinya Hayashi, et al.,* Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine…S301

2-10-S37-5 Examining the timing and indications of knee surgery in rheumatoid arthritis
……*Satomi Nagamine, et al.,* Dept. of Orthop. Surg., Saga Univ.…S302

2-10-S37-6 Assessment of the foot and ankle from early stage of RA treatment
……*Makoto Hirao,* Dept. of Orthop. Surg., Osaka Minami Medical Center…S302

15：20 ～ 16：20　Free papers 39　Moderators K. Hayakawa, J. Fukushi
RA: Surgery/miscellaneous

2-10-7 Orthopaedic surgical intervention for patients with difficult-to-treat rheumatoid arthritis
……*Shogo Toyama, et al.,* Niigata Rheumatic Center…S303

2-10-8 Outcome of joint-preserving surgery for rheumatoid forefoot deformity complicated by severe hallux valgus……*Ayako Kubota, et al.,* Dept. of Orthop. Surg., Toho Univ. (Omori)…S303

2-10-9 The relationship between difficult-to-treat rheumatoid arthritis and sarcopenia: A multicenter observational study: T-FLAG study
……*Yoshifumi Ohashi, et al.,* Dept. of Orthop. Surg., Aichi Medical Univ.…S304

2-10-10 A study on the reversibility of social frailty in patients with rheumatoid arthritis from a multicenter observational study (T-FLAG study)
……*Mochihito Suzuki, et al.,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S304

2-10-11 Association between disease activity, muscle quality, and physical function in rheumatoid arthritis: A comparative study with healthy controls
……*Takaya Sugiura, et al.,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S305

2-10-12 Differences in drug selection among rheumatoid arthritis patients based on out-of-pocket medical expenses……*Yusuke Sugimura, et al.,* Dept. of Orthop. Surg., Akita Rosai Hosp.…S305

16：55 ～ 17：55　Instructional lecture 32　Moderator　S. Matsubara

2-10-EL32　Surgery and rehabilitation in current rheumatoid arthritis treatment strategy: The importance of total management ……*Nobunori Takahashi,* Dept. of Orthop. Surg., Aichi Medical Univ.…S306

2nd Day　May 23　Room JP-A　(JP tower, Hall 1+2+3)

8：00 ～ 9：20　Symposium 38　Moderators　H. Hagino, H. Ishibashi
Key points in osteoporosis screening and the role of orthopaedic surgeons

2-A-S38-1　Current status for imaging-based osteoporosis screening
……*Teruki Sone,* Dept. of Rad. Tech., Kawasaki Univ. of Med. Welf.…S307

2-A-S38-2　Essential points for osteoporosis screening considering secondary osteoporosis
……*Yasuhiro Takeuchi,* Toranomon Hosp. Endocr. Ctr.…S307

2-A-S38-3　Development of research on osteoporosis, sarcopenia, and frailty considering geriatric medicine
……*Tomohiko Urano,* Dept. of Geriatric Medicine, International Univ. of Health and Welfare…S308

2-A-S38-4　Key points for osteoporosis screening by orthopaedic surgeons: What we should do to close the care gap……*Hideaki Ishibashi,* Dept. of Orthop. Surg., Ina Hosp.…S308

9：25 ～ 10：45　Symposium 39　Moderators　I. Ohno, T. Matsumura
Indications and limitations of conservative treatment orthopaedic surgeons should know

2-A-S39-1　Clavicle shaft fracture: Indications and limitations of conservative management
……*Natsumi Saka, et al.,* Dept. of Orthop. Surg., Teikyo Univ.…S309

2-A-S39-2　Proximal humerus fracture: Exploring the indications and limitations of conservative treatment through a systematic review……*Norihide Kanda,* Dept. of Emerg., Gifu Univ.…S309

2-A-S39-3　Indications and limitations of conservative treatment for distal radius fractures
……*Kiyohito Naito, et al.,* Dept. of Orthop., Juntendo Univ.…S310

2-A-S39-4　The indications and limitations of nonoperative treatment for isolated lateral malleolar fractures (Weber type B)……*Narisaku Inada, et al.,* Dept. of Orthop. Surg., Kyorin Univ.…S310

2-A-S39-5　Indications and boundaries of conservative treatment for thoracolumbar fractures
……*Tadashi Yahata,* Advanced Center for Emergency and Critical Care Medicine, Saitama Medical Center, Saitama Medical Univ.…S311

11：00 ～ 12：00　Instructional lecture 33　Moderator　T. Noda

2-A-EL33　Partial articular fracture of the distal radius: Barton fractures revisited
……*Yoshiaki Kurata,* Div. of Orthop. Trauma, Sapporo Tokushukai Hosp.…S312

12：30 ～ 13：40　Luncheon seminar 22　Moderator　M. Ito

2-A-LS22　Development in surgical treatment of femoral neck fracture to improve outcomes
……*Masanori Yorimitsu,* Dept. of Musculoskeletal Traumatology, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ.…S312

13：55 ～ 15：15　Symposium 40　Moderators　A. Nishimoto, S. Kishida
Regional cooperation after proximal femoral fracture surgery in patients with osteoporosis

2-A-S40-1　The collaboration in osteoporosis treatment for patients with proximal femoral fracture
……*Shunji Kishida, et al.,* Dept. of Orthop. Surg., Seirei Sakura Citizen Hosp.…S313

2-A-S40-2　What acute care hospitals can do to support secondary fracture prevention after hip fractures in medical clinics……*Kaoru Yamazaki,* Dept. of Orthop. Surg., Iwata City Hosp.…S313

15：20～16：40 Symposium 41 Moderators A. Sudo, M. Saito
The optimal solution for osteoporosis treatment: What is the problem, and how should it be solved?

16：55～17：55 Instructional lecture 34 Moderator K. Iba

2nd Day May 23 Room JP-B (JP tower, Conference Room A)

8：00～9：20 Symposium 42 Moderators K. Ikari, N. Kanzaki
Surgical indications for ankle arthritis

9：25 ～ 10：45　Symposium 43　Moderators　Y. Tanaka, T. Nakasa
Foot surgery techniques that should be shared with the world

11：00 ～ 12：00　Instructional lecture 35　Moderator　S. Matsubara

12：30 ～ 13：40　Luncheon seminar 23　Moderator　T. Ogata

13：55 ～ 15：15　Symposium 44　Moderators　T. Onodera, N. Kanzaki
Current status of lateral approach total ankle arthroplasty

15：20 ～ 16：20　Afternoon seminar 1　Moderator　S. Mori

16：55 ～ 17：55　Free papers 40　Foot & ankle　Moderators　T. Nishikawa, K. Watanabe

2nd Day　May 23　Room JP-C　(JP tower, Conference Room B)

8：00 ～ 9：20　Symposium 45　Moderators　K. Hiraoka, H. Kawashima
Advances in malignant soft tissue tumor treatment

9：25 ～ 10：45　JOA Directors' proposed symposium 3　Moderators　H. Katagiri, H. Hiraga
How should medical collaboration for metastatic bone tumors be structured?

11：00～12：00 Instructional lecture 36 Moderator Y. Nishida

12：30～13：40 Luncheon seminar 24 Moderator Y. Kawaguchi

13：55～15：15 Symposium 46 Moderators A. Kawai, T. Ozaki
The current situation of bone and soft tissue tumor treatment revealed from a large-scale database

15：20～16：20 Afternoon seminar 2 Moderator H. Akiyama

16：55～17：55 Instructional lecture 37 Moderator H. Murakami

8：55 ～ 10：15 Symposium 47 Moderators T. Kanemura, N. Hosogane
Challenges and prospects in drug approval and insurance coverage of new medical devices

3-1-S47-1 The post-marketing safety measurement of brand new medical devices
Daisuke Fujisawa, PMDA…S347

3-1-S47-2 System framework for integrating medical devices into insured medical care in Japan
Eisaku Kishita, Medical Economics Div., Health Insurance Bureau, Ministry of Health, Labour and Welfare…S347

3-1-S47-3 Regulatory approval and reimbursement filing of new medical devices: From a company perspective
Kei Maeda, Medtronic…S348

3-1-S47-4 Current status of government approval of new medical devices
Gen Inoue, et al., JSSR Sacroiliac joint fusion device working group…S348

3-1-S47-5 Role of medical societies in the introduction of new medical devices: Efforts of the new technology verification committee of JSSR
Tokumi Kanemura, et al., Dept. of Orthop. Surg., Konan Kosei Hosp.…S349

10：30 ～ 11：30 Keynote lecture Moderator N. Iwasaki

3-1-KL Toward the revival of the research capability in Japan: The role of medicine
Kiyohiro Houkin, Hokkaido Univ.…S350

12：00 ～ 13：10 Luncheon seminar 25 Moderator T. Matsumura

3-1-LS25-1 Wounds closure in trauma surgery: Do's and Don'ts for optimal healing and functional recovery
Shimpei Kitada, Orthop. Trauma Center, Hyogo Pref. Nishinomiya Hosp.…S351

3-1-LS25-2 Dos and Don'ts for wound closure: Preventing SSI, skin ulcers, and hypertrophic scars
Rei Ogawa, Dept. of Plast. Surg., Nippon Medical School…S351

13：25 ～ 14：25 Special lecture Moderator H. Kawano

3-1-SL Social development through sports: Creating a community where people can live with a sense of well-being
Seiko Hashimoto, Member of the House of Councillors, National Diet of Japan…S352

14：40 ～ 16：00 Symposium 48 Moderators Y. Mikami, T. Kurozumi
The role of orthopaedic surgeons in international cooperation

3-1-S48-1 International cooperation through the WHO EMT initiative: From the perspective of the emergency medical team coordination cell (EMTCC)
Tatsuhiko Kubo, Hiroshima Univ.…S353

3-1-S48-2 International cooperation as the Japan disaster relief medical team
Noriaki Mizuta, et al., Dept. of Emergency, Hyogo Prefectural Harima-Himeji General Medical Center…S353

3-1-S48-3 International peace cooperation activities of Japan self-defense forces: Orthopaedic aspects in the activities
Masahisa Kawaguchi, et al., S.D.F. Sapporo Hosp.…S354

3-1-S48-4 International cooperation as NPO: Disaster medical relief by NPO humanitarian medical assistance
Tomoaki Natsukawa, Yodogawa Christian Hosp.…S354

16：30 ～ 17：30 Ambitious lecture 4 Moderator Y. Nohara

3-1-AL4 Regenerative medicine for spinal cord injury using iPS cells
Masaya Nakamura, Dept. of Orthop. Surg., Keio Univ.…S355

3rd Day May 24 Room 2 (TIF, Hall C)

8：00～9：00 Instructional lecture 38 Moderator H. Nagashima

3-2-EL38 Theoretical epidemiology of infectious disease prevention and present situations of disease prediction
……*Hiroshi Nishiura,* Center for Health Security, Grad. Sch. of Med., Kyoto Univ.…S355

9：15～10：15 Instructional lecture 39 Moderator K. Hara

3-2-EL39-1 Medical support of Paris 2024 Olympics and Paralympics
……*Tetsuo Suyama,* Dept. of Rehabilitation Medicine, Saitama Medical Univ.…S356

3-2-EL39-2 Paris 2024 Olympic Games: Medical support for national cycling team
……*Tsukasa Kumai,* Faculty of Sport Sciences, Waseda Univ.…S356

10：30～11：30 Instructional lecture 40 Moderator N. Kamei

3-2-EL40 ICT (information and communication technology) evolution's impact on medical and healthcare
……*Toshihiko Yamato,* ITi Ltd.…S357

12：00～13：10 Luncheon seminar 26 Moderator S. Nakagawa

3-2-LS26-1 Development and future of next-generation portable navigation for TKA using augmented reality……*Hiroyuki Ogawa,* Dept. of Orthop. Surg., Hokusuikai Kinen Hosp.…S358

3-2-LS26-2 Augmented reality-based navigation system applied to total knee arthroplasty: The AR-KNEE
……*Sachiyuki Tsukada, et al.,* Dept. of Orthop. Surg., Hokusuikai Kinen Hosp.…S358

14：40～15：40 Instructional lecture 41 Moderator S. Ohtori

3-2-EL41 Big data in health economics
……*Toshiaki Iizuka,* Graduate School of Economics, The Univ. of Tokyo…S359

15：55～17：15 Symposium 49 Moderators T. Ozaki, N. Tsumaki
The importance of cartilage metabolism in various orthopaedic diseases

3-2-S49-1 Importance of cartilage metabolism for cartilage degeneration in early-stage knee osteoarthritis……*Muneaki Ishijima, et al.,* Dept. of Orthop., Juntendo Univ.…S360

3-2-S49-2 Osteoarthritis of the knee: Cartilage metabolism in repair and regeneration
……*Masato Sato, et al.,* Dept. of Orthop. Surg., Surgical Science, Tokai Univ.…S360

3-2-S49-3 Cartilage metabolic disease in cartilaginous endplate in spine
……*Yoshihiro Matsumoto, et al.,* Dept. of Orthop. Surg., Fukushima Medical Univ.…S361

3-2-S49-4 Cartilage metabolism in achondroplasia
……*Masaki Matsushita, et al.,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S361

3-2-S49-5 Chondromatous tumors: Diversity of malignancy, genetic abnormalities, and cartilage metabolic disorders……*Yoshihiro Nishida,* Dept. of Rehabil. Med., Nagoya Univ. Hosp.…S362

17：30～18：30 Instructional lecture 42 Moderator A. Okawa

3-2-EL42 Patient safety: Risk control and crisis management……*Yasuyuki Nasuhara,* Hokkaido Univ. Hosp.…S363

3rd Day May 24 Room 3 (TIF, Hall B7(1))

7：50～8：50 JOA Directors' proposed lecture 1 Moderator S. Nakajima

3-3-JEL1-1 Radiation safety management for occupational exposure of health care workers
····*Toshioh Fujibuchi,* Div. of Med. Q. Sci., Dept. of Hlth. Sci., Fac. of Med. Sci., Kyushu Univ.…S364

3-3-JEL1-2 Occupational radiation exposure for spine surgeons: Risks and medical safety strategies
……*Kazuta Yamashita, et al.,* Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School…S364

8：55～10：15 JOA Directors' proposed symposium 4 Moderators T. Ohe, M. Tanaka
Japanese Orthopaedic Association's initiatives to address challenges: Insights from Health Japan 21 (Third edition)

3-3-JS4-1 Understanding a precursor of locomotive syndrome using GLFS 25: Results from the two large-scale surveys in 2017–2019 and 2024
……*Keiko Yamada,* Saitama Prefectural Univ./Locomo Challenge! Council…S365

3-3-JS4-2 Measures to decrease in number of patients of locomotive syndrome as JOA
……*Reiko Murakami, et al.,* Div. of Comprehensive Musculoskeletal Medicine, Niigata Univ. Grad. Sch. of Medical and Dental Sci.…S365

3-3-JS4-3 The impact of locomotive syndrome on various diseases and rehabilitation treatment
……*Yoshitada Sakai,* Div. of Rehabilitation Medicine, Kobe Univ. Graduate School of Medicine…S366

3-3-JS4-4 Current status and future direction of osteoporosis screening in Japan
……*Naohisa Miyakoshi, et al.,* Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine…S366

3-3-JS4-5 Importance and problems of osteoporosis screening
……*Sakae Tanaka,* Orthop. Surg., Sensory and Motor System Medicine, Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo…S367

10：30～11：30 JOA Directors' proposed lecture 2 Moderator A. Matsumine

3-3-JEL2 Update of SSI prevention in clean surgery, and our knowledge gap
……*Koji Yamada, et al.,* Nakanoshima Orthop.…S368

12：00～13：10 Luncheon seminar 27 Moderator T. Iida

3-3-LS27-1 Using data analytics and predictive modeling to improve reliability (English)
……*David Ou-Yang,* Dept. of Orthop. Surg., Univ. of Colorado School of Medicine, Denver, CO, USA…S369

3-3-LS27-2 Revolutionizing spine surgery with the evolution of intraoperative 3D imaging systems
……*Tokumi Kanemura,* Dept. of Orthop. Surg., Konan Kosei Hosp.…S369

13：25～14：25 Instructional lecture 43 Moderator K. Urabe

3-3-EL43-1 Medical innovation and bioethics: Organ transplantation
……*Tsuyoshi Shimamura,* Div. of Organ Transplantation, Hokkaido Univ. Hosp.…S370

3-3-EL43-2 Current status and future perspective of allogenic tissue transplantation in Japan
……*Gen Inoue,* Dept. of Orthop. Surg., Kitasato Univ.…S370

14：40～15：40 JOA/AAOS combined program: Instructional lecture 1 (English)
Moderators Y. Nakashima, R. Kuroda

3-3-ICL1-1 Osteotomy around the knee: The surgical treatment of osteoarthritis
……*Annunziato Amendola,* American Academy of Orthopaedic Surgeons (AAOS)…S371

15：55～16：55 JOA/AAOS combined program: Instructional lecture 2 (English)
Moderators H. Sugaya, Y. Ishibashi

17：20～18：50 JOA/AAOS combined symposium (English) **Moderators A. Amendola, K. Sato**
Current status of treatment for sports injury

3rd Day May 24 Room 4 (TIF, Hall B7(2))

7：50～8：50 JOA Directors' proposed lecture 3 **Moderator D. Hamada**

8：55～10：15 JOA Directors' proposed symposium 5 **Moderators N. Adachi, R. Kuroda**
Current status and challenges of knee joint regenerative medicine

12：00～13：10 Luncheon seminar 28 Moderator Y. Yoshii

13：25～14：45 JOA Directors' proposed symposium 6 Moderators M. Nakamura, H. Akiyama
The world of evolving medical DX (digital transformation)

15：00～16：20 Symposium 50 Moderators T. Kumai, C. Watanabe
You can achieve so much! Further possibilities of ultrasound for the musculoskeletal system

16：35～17：35 Instructional lecture 44 Moderator T. Moro

17：50～18：50 Invited lecture 12 (English) Moderator Y. Ohkoshi

3rd Day May 24 Room 5 (TIF, Hall D7)

8：00～9：00 Lecture for next generation 1 Moderator H. Haro

3-5-LNG1 Message for young generation: Encouragement for basic and clinical researches
……*Yoshiharu Kawaguchi,* Dept. of Orthop. Surg., Faculty of Medicine, Univ. of Toyama…S389

9：15～10：15 Lecture for next generation 2 (English) Moderator D. Sakai

3-5-LNG2-1 The 7 secrets of being a high impact researcher
……*Mohit Bhandari,* McMaster Univ., Hamilton, Canada…S390

3-5-LNG2-2 Know-how and exit strategies from obtaining grants to writing papers
……*Hideki Sudo,* Dept. of Orthop. Surg., Hokkaido Univ. Hosp.…S390

10：30～11：30 Lecture for next generation 3 Moderator M. Watanabe

3-5-LNG3 How to make your English presentation successful at international meetings
……*Manabu Ito,* Dept. of Orthop. Surg., NHO Hokkaido Medical Center…S391

12：00～13：10 Luncheon seminar 29 Moderator Y. Uchio

3-5-LS29 Treatment options for cartilage injury of the knee
……*Ken Okazaki,* Dept. of Orthop. Surg., Tokyo Women's Medical Univ.…S391

13：25～14：45 Symposium 51 Moderators Y. Tajiri, M. Ikeuchi
Life planning for orthopaedic surgeons: Advice for young doctors

3-5-S51-1 Life planning for orthopaedic surgeons: How long will you perform surgeries and how long will you work?……*Hideaki Yoshida,* Dept. of Orthop. Surg., Fussa Hosp.…S392

3-5-S51-2 Surgical training status of senior residents based on JOANR
……*Tatsuro Karita, et al.,* Tokyo Metropolitan Ohkubo Hosp.…S392

3-5-S51-3 Suggestions for young doctors from the perspective of an orthopaedic surgeon in private practice……*Yoshitaka Shinto,* Shinto Orthop. and Rheumatology Clinic…S393

3-5-S51-4 Life plan for orthopaedic doctors: Suggestion from hospital doctor to young JOA members
……*Takenori Oda,* Dept. of Orthop. Surg., Osaka Minami Medical Center…S393

3-5-S51-5 Recommendations to young doctors from the perspective of a female orthopaedic staff physician……*Yumi Niizeki,* Dept. of Orthop. Surg., Soka Municipal Hosp.…S394

15：00～16：20 Symposium 52 Moderators M. Tanaka, T. Shimizu
Proposals from young doctors: Toward the future of orthopaedic care

3-5-S52-1 The experience of acquiring a spine surgeon certification through domestic fellowship and the real voices of young orthopaedic surgeons
……*Tomoaki Shimizu, et al.,* Dept. of Orthop. Surg., Tsukuba Medical Center Hosp.…S395

3-5-S52-2 Career path in the orthopaedic trauma center
……*Yuta Izawa,* Trauma Center, Shonan Kamakura General Hosp.…S395

3-5-S52-3 Challenges and prospects for orthopaedic surgery in community medicine: Experience as a general physician……*Akihiro Saitsu,* Dept. of Orthop., Jichi Medical Univ.…S396

3-5-S52-4 Women in orthopaedic surgery, is that something special: Building the career of a female orthopaedic surgeon
……*Mariko Kawamura, et al.,* Dept. of Orthop. Surg., Hokkaido Univ. Hosp.…S396

3-5-S52-5 The critical role of orthopaedic surgeons in engaging in basic research: Bridging clinical practice and innovation……*Taku Ebata, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S397

16：30～17：30 Free papers 41 Moderators Y. Takazawa, D. Araki
Knee: Medial meniscus posterior root tear (MPRT)

17：30～18：30 Free papers 42 Knee: Osteotomy 3 Moderators T. Akiyama, K. Tensho

3rd Day May 24 Room 6 (TIF, Hall D5)

8：00～9：00 Free papers 43 Moderators Y. Miyawaki, K. Higashino
Lumbar spine endoscopic surgery

3-6-2 Evaluation of full-endoscopic transforaminal approach at L5/S1 level using 3D-MRI/CT simulation: Comparative age and gender in 208 cases ･･･ *Tomoya Sato, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.･･･S404

3-6-3 Safety area analysis based on transforaminal approach surgery in degenerative lumbar spondylolisthesis using 3D-MRI/CT fusion images generated by AI technology ･･･ *Katsuhisa Yamada, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.･･･S405

3-6-4 Comparative study between percutaneous endoscopic transforaminal lumbar interbody fusion and minimally-invasive transforaminal lumbar interbody fusion for degenerative lumbar spine disorders ･･･ *Katsuhisa Yamada, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.･･･S405

3-6-5 Full-endoscopic trans-Kambin lumbar interbody fusion (FE-KLIF) for lumbar degenerative spondylolisthesis: A 3-year postoperative study ･･･ *Seiji Yamaya, et al.,* Dept. of Orthop. Surg., Sendai Nishitaga Hosp.･･･S406

3-6-6 Efficacy and safety of multidrug cocktail injections in postoperative pain management for lumbar microendoscopic surgery: A prospective randomized controlled trial ･･･ *Shizumasa Murata, et al.,* Dept. of Orthop. Surg., Shingu Municipal Medical Center･･･S406

9：15 ～ 10：15 JOA academic encourage award Moderator S. Okada

3-6-AE-1 Engraftment of allogeneic iPS cell-derived cartilageorganoid in a primate model of articular cartilage defect ･･･ *Kengo Abe, et al.,* Dept. of Tissue Biochemistry, Graduate School of Medicine, Osaka Univ./ Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.･･･S407

3-6-AE-2 Spatial heterogeneity of bone marrow endothelial cells unveils a distinct subtype in the epiphysis ･･･ *Takahito Iga, et al.,* Dept. of Orthop. Surg., Keio Univ.･･･S407

3-6-AE-3 Viable tumor cell density after neoadjuvant chemotherapy assessed using deep learning model reflects the prognosis of osteosarcoma ･･･ *Kengo Kawaguchi,* Dept. of Orthop. Surg., and Health Care Administration and Management, Graduate School of Medical Sciences, Kyushu Univ.･･･S408

3-6-AE-4 Automated entry of paper-based patient-reported outcomes: Applying deep learning to the Japanese Orthopaedic Association back pain evaluation questionnaire ･･･ *Kosuke Kita, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.･･･S408

12：00 ～ 13：10 Luncheon seminar 30 Moderator S. Ohtori

3-6-LS30-1 End-focused medical treatment for low back pain: Toward treatment for the patient ･･･ *Tomoko Tetsunaga,* Dept. of Sports Medicine, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ.･･･S409

3-6-LS30-2 Diagnosis and treatment of chronic low back pain ･･･ *Hidenori Suzuki,* Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine･･･S409

13：25 ～ 14：45 Symposium 53 Moderators H. Ozawa, H. Murakami
Treatment strategies for adult spinal deformity

3-6-S53-1 Corrective surgery for adult spinal deformity: Direct pelvis manipulation and segmental translation technique ･･･ *Kentaro Fukuda,* Dept. of Orthop. Surg., Saiseikai Yokohamashi Tobu Hosp.･･･S410

3-6-S53-2 Surgical treatment of adult spinal deformity to consider spinopelvic mobility ･･･ *Satoshi Inami, et al.,* Dept. of Orthop. Surg., Dokkyo Medical Univ.･･･S410

15：00～16：20 Symposium 54 Moderators K. Chiba, H. Chikuda
Cervical spine disease treatment in an aging society

16：30～17：30 Free papers 44 Adult spinal deformity 1 Moderators K. Kanzaki, K. Miyamoto

17：30～18：30 Free papers 45 Adult spinal deformity 2 Moderators K. Watanabe, Y. Yamato

3rd Day May 24 Room 7 (TIF, Hall D7)

Only sessions marked as "English" will be conducted in English

8：00 ～ 9：00 Invited lecture 13 (English) Moderator S. Imai

9：15 ～ 10：15 Invited lecture 14 (English) Moderator H. Niki

12：00 ～ 13：10 Luncheon seminar 31 Moderator J. Takahashi

13：25 ～ 14：25 Invited lecture 15 (English) Moderator K. Yamauchi

14：40 ～ 15：40 Invited lecture 16 (English) Moderator N. Oizumi

15：55～17：15 Symposium 55 Moderators T. Miyamoto, T. Endo
Current status and challenges in the introduction of telemedicine

17：30～18：30 Free papers 46 Moderators Y. Sakamoto, T. Fujiwara
Osteoporosis: Miscellaneous

3rd Day May 24 Room 8 (TIF, G701)

8：00～9：20 Symposium 56 Moderators G. Omori, S. Yamaguchi
Rethinking the pathophysiology of lower limb OA (osteoarthritis)

9：35～10：35 Invited lecture 17 (English) **Moderator S. Otsuki**

12：00～13：10 Luncheon seminar 32 Moderator M. Ikeuchi

14：40～15：40 Invited lecture 18 (English) **Moderator N. Kawakami**

15：55～17：15 Symposium 57 Moderators K. Okazaki, H. Nakayama
Optimal alignment for knee osteotomy: Is 62% always correct?

17：30～18：30 Instructional lecture 45 Moderator N. Kamei

3rd Day May 24 Room 9 TIF, G602)

8：00～9：20 Symposium 58 Moderators N. Takahira, T. Yamamoto
From the development of osteotomy to its succession and advancement to the next generation

17：30 ～ 18：30　Free papers 47　Infection: Epidemiology　Moderators　S. Tanishima, G. Kumagai

3-9-1 Is the natural course of perioperative laboratory testing effective in identifying wound-related complications following primary total hip arthroplasty?
……*Daisuke Inoue, et al.,* Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ.…S453

3-9-2 Chronological changes of bacterial incidence ratio in the surgical field of shoulder joint
……*Hisahiro Tonotsuka, et al.,* Dept. of Orthop. Surg., Kanagawa Rehabilitation Hosp.…S453

3-9-3 Cervical pyogenic spondylitis is more serious than thoracic and lumbar pyogenic spondylitis
……*Tomoaki Nagahama, et al.,* Dept. of Orthop. Surg., Saga Univ.…S454

3-9-4 Risk factors for surgical site infection following spinal surgery
……*Yohei Takahashi, et al.,* Dept. of Orthop. Surg., Japanese Red Cross, Shizuoka Hosp.…S454

3-9-5 The impact of frailty on the treatment of pyogenic spondylitis
……*Takaki Kitamura, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.…S455

3-9-6 Investigation of PCR gene diagnosis for bone and soft tissue infections: Comparison of 2836 samples by tissue, site, and strain……*Yuta Hieda, et al.,* Dept. of Orthop. Surg., Yokohama City Univ. Hosp.…S455

3rd Day　May 24　Room 10　(TIF, G610)

8：00 ～ 9：00　Instructional lecture 46　Moderator　S. Demura

3-10-EL46 Which operative procedure to choose for the treatment of vertebral deformity due to osteoporotic fracture
……*Takanori Saito, et al.,* Dept. of Orthop. Surg., Kansai Medical Univ. Hosp.…S456

9：15 ～ 10：15　Instructional lecture 47　Moderator　T. Tachibana

3-10-EL47-1 Early management for acute spinal cord injury
……*Kota Suda,* Hokkaido Spinal Cord Injury Center…S457

3-10-EL47-2 Database for spinal cord injury……*Hiroaki Sakai,* Spinal Injuries Center…S457

10：30 ～ 11：30　Free papers 48　Moderators　H. Konishi, K. Mori
Spinal cord injury/ligamentous ossification

3-10-1 Synergistic effects of visceral fat and obesity are strongly implicated in the pathogenesis of Japanese ossification of posterior longitudinal ligament
……*Tomoya Sato, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S458

3-10-2 Residual postoperative neuropathic pain control is important for patients returning to work after cervical OPLL surgery: JOSL study
……*Kanji Mori, et al.,* Dept. of Orthop. Surg., Shiga Univ. of Medical Science…S458

3-10-3 Prevalence and etiology of diffuse idiopathic skeletal hyperostosis (DISH) in elderly community residents: Bunkyo health study……*Yuta Sugawara, et al.,* Dept. of Orthop., Juntendo Univ.…S459

3-10-4 Methylprednisolone is associated with improved neurological recovery and reduced complications in severe cervical spinal cord injury
……*Tetsuhiko Mimura, et al.,* Dept. of Orthop. Surg., Shinshu Univ.…S459

3-10-5 Clinical and imaging features in patients with ossification of the posterior longitudinal ligament undergoing lumbar spine surgery……*Yoshinao Koike, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S460

12：00～13：10 Luncheon seminar 34 Moderator G. Inoue

13：25～14：25 Free papers 49 Moderators Y. Fujiwara, H. Nakajima
Spine & spinal cord tumor/spinal monitoring

14：40～15：40 Afternoon seminar 4 Moderator Y. Minoda

15：55～17：15 Symposium 60 Moderators T. Jinno, N. Kaku
Total management of osteoarthritis of the hip

3-10-S60-3 Femoroacetbular impingement and hip osteoarthritis
……*Kensuke Fukushima, et al.,* Dept. of Orthop. Surg., Kitasato Univ.…S467

3-10-S60-4 Relationship between osteoarthritis of the hip and spine/pelvic alignment and tips & tricks for the treatment……*Hiroyuki Ike, et al.,* Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine…S467

3-10-S60-5 The relationship between osteoarthritis of the hip and spinal balance: Considerations for treatment
……*Toshiyuki Kawai,* Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.…S468

17：30～18：30 Instructional lecture 48 Moderator A. Kaneuji

3-10-EL48 Mid-term results of hybrid 4-U THA system for Japanese patients with DDH
……*Hiroshi Ito,* Dept. of Orthop. Surg., Asahikawa Medical Univ.…S469

3rd Day May 24 Room 11 (TIF, G502)

8：00～9：00 Free papers 50 THA: Results Moderators Y. Miura, N. Hirasawa

3-11-1 Does the femoral cementing quality of cemented stems impact on the PROMs at the mid-term follow-up?
……*Hitoshi Wakama, et al.,* Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ.…S470

3-11-2 Utility values from preoperative to one year postoperative in THA patients: Utility values derived from the Japanese version of EQ-5D-5L
……*Tomohiro Yoshizawa, et al.,* Dept. of Orthop. Surg., Univ. of Tsukuba…S470

3-11-3 Evaluation of stem alignment affecting post-patient satisfaction in total hip arthroplasty
……*Hiroki Kaneta, et al.,* Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ.…S471

3-11-4 Long term results of cementless total hip arthroplasty with using secure-fit stem
……*Ken Iwata, et al.,* Dept. of Orthop. Surg., Kagawa Univ.…S471

3-11-5 Treatment results of metal-on-metal total hip arthroplasty over an average of 13 years after 5 years of surgery……*Hiroki Wakabayashi, et al.,* Dept. of Musculoskeletal Surg., Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine…S472

3-11-6 20-year results of Charnley THA using modern cement technique
……*Tadashi Teranishi, et al.,* Dept. of Orthop. Surg., Asahikawa Noushinkeigeka Junkannkinaika Hosp.…S472

9：15～10：15 Free papers 51 THA: Cup Moderators Y. Harada, M. Akutsu

3-11-7 Comparison of direct anterior approach and posterolateral approach in total hip arthroplasty following pelvic osteotomy……*Takahiro Negayama, et al.,* Dept. of Orthop. Surg., Kagawa Univ.…S473

3-11-8 Intraoperative pelvic rotation in direct anterior approach total hip arthroplasty using a leg positioner……*Kazutaka So, et al.,* Dept. of Orthop. Surg., Shiga General Hosp.…S473

3-11-9 Long term results over 10 years of FL-R socket
……*Hiroki Nomura, et al.,* Dept. of Orthop. Surg., Shinonoi General Hosp.…S474

3-11-10 Effects of intraoperative pelvic motion on measurement accuracy of augmented reality-based portable hip navigation system
……*Hiromasa Tanino, et al.,* Dept. of Orthop. Surg., Asahikawa Medical Univ.…S474

3-11-11 Analysis of the safe zone for acetabular cup screws using 3D CT imaging
……*Takamitsu Sato, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.…S475

3-11-12 A novel free-hand method using fluoroscopic templating for accurate cup placement in supine position total hip arthroplasty……*Kazuhiko Sonoda, et al.,* Dept. of Orthop. Surg., Iizuka Hosp.…S475

10：30～11：30　Free papers 52　THA: Complication　Moderators　H. Ohashi, K. Oe

3-11-13 Total hip arthroplasty via the direct anterior approach with the dual mobility cup for displaced femoral neck fracture in dementia……*Ryuji Okuno, et al.,* Dept. of Orthop., Juntendo Univ.…S476

3-11-14 Changes over time of urinary incontinence in patients with osteoarthritis of the hip after total hip arthroplasty……*Masaru Kadowaki, et al.,* Dept. of Orthop., Shimane Univ.…S476

3-11-15 Does THA approach affect postoperative DVT occurrence?: A retrospective study ……*Yasuyuki Omichi, et al.,* Dept. of Orthop. Surg., Tokushima Muni. Hosp.…S477

3-11-16 Screening for osteoporosis in patients prior to total hip arthroplasty using proximal femur morphological indexes……*Masanori Nishi, et al.,* Dept. of Orthop. Surg., Showa Univ.…S477

3-11-17 Optimal stem length planning in total hip arthroplasty for hip osteoarthritis with subtrochanteric localized periosteal thickening using finite element analysis ……*Koshiro Shimasaki, et al.,* Dept. of Orthop. Surg., Univ. of Tsukuba…S478

3-11-18 The Hounsfield unit value of the greater trochanter influences the risk of greater trochanteric fractures in MIS-THA……*Ryuichiro Okuda, et al.,* Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ.…S478

12：00～13：10　Luncheon seminar 35　Moderator　Y. Nakashima

3-11-LS35 The efficiency of medical management in the orthopaedic department ……*Hideaki Shiratsuchi,* Funabashi Orthop. Hosp.…S479

13：25～14：25　Free papers 53　THA: Sagittal balance　Moderators　A. Sato, T. Hayama

3-11-19 Relationship between preoperative spinal deformity and spinal stiffness and the hip-spine classification in total hip arthroplasty patients ……*Koki Abe, et al.,* Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine…S480

3-11-20 Preoperative hip range of motion and sagittal global alignment impacts spinopelvic alignment and mobility after total hip arthroplasty ……*Yuta Matsuki, et al.,* Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine…S480

3-11-21 A study of changes in sagittal vertical axis on total hip arthroplasty ……*Hideki Fukuchi, et al.,* Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine…S481

3-11-22 The factors of contributing to pelvic obliquity after THA ……*Takehiro Kawakami, et al.,* Dept. of Orthop. Surg., Yamaguchi Prefectural Grand Medical Center…S481

3-11-23 Does preoperative radiographical degenerative lumbar spondylolisthesis improve after total hip arthroplasty? ……*Yaichiro Okuzu, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.…S482

3-11-24 Subluxation sign in the patients after total hip arthroplasty ……*Youngwoo Kim, et al.,* Dept. of Orthop. Surg., Kyoto City Hosp.…S482

15：55～17：15　Symposium 61　Moderators　Y. Hoshino, K. Takeshita
Clinical application of EMS (electrical muscle stimulation)

3-11-S61-1 Clinical application of EMS to the rehabilitation of visceral impairment ……*Masahiro Kohzuki,* Yamagata Prefectural Univ. of Health Sciences…S483

3-11-S61-2 Perspective of EMS therapy in clinical applications ……*Toru Ogata,* Rehabilitation Center, The Univ. of Tokyo Hosp.…S483

3-11-S61-3 Effects of electrical muscle stimulation on the joint contracture ……*Minoru Okita,* Institute of Biomedical Sciences (Health Sciences), Nagasaki Univ.…S484

17：30～18：30 Free papers 54 Moderators H. Hashizume, Y. Kobayashi
Wrist & finger fractures

3rd Day May 24 Room 12 TIF, G402)

8：00～9：00 Instructional lecture 49 Moderator S. Yamazaki

9：15～10：15 Instructional lecture 50 Moderator H. Yamada

10：30～11：30 Free papers 55 Moderators N. Hidaka, S. Iwabu
Upper limb fractures/microsurgery

12：00～13：10　Luncheon seminar 36　Moderator　Y. Mikami

3-12-LS36　Latest treatments for autoimmune peripheral neuropathy: What orthopaedic surgeons need to know……*Yukio Takeshita,* Dept. of Neurology., Yamaguchi Univ.…S492

13：25～14：25　Free papers 56　Moderators　S. Takahashi, K. Sato
Computer assisted surgery & AI

3-12-7　Automated diagnosis system for thoracic posterior longitudinal ligament ossification and ossification of the ligamentum flavum on X-rays using deep learning
……*Sadayuki Ito, et al.,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S493

3-12-8　Development and clinical application of an AI-based prognostic model for proximal-type cervical spondylotic amyotrophy
….*Yusuke Ichihara, et al.,* Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine…S493

3-12-9　Prediction of vertebral rotation angle in adolescent idiopathic scoliosis using deep learning with convolutional neural networks……*Hiroyuki Tachi, et al.,* Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.…S494

3-12-10　Developed an artificial intelligence system to calculate whole-body skeletal muscle mass from ultrasound images……*Hiroyuki Oka, et al.,* Div. of Musculoskeletal AI System Development, Faculty of Medicine, The Univ. of Tokyo…S494

3-12-11　Cervical vertebroplasty training system
……*Taiga Tanaka, et al.,* Graduate School of Tokyo Denki Univ.…S495

3-12-12　Validation of robotically-assisted patella tracking in total knee arthroplasty: A biomechanics study using cadaver bone
……*Koki Abe, et al.,* Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine…S495

14：40～15：40　Instructional lecture 51　Moderator　K. Nishida

3-12-EL51-1　Competencies required for supervising physicians in the digital era: Perspectives from medical education research
……*Sayaka Oikawa,* Dept. of Innovative and Digitalized Medical Education, Akita Univ.…S496

3-12-EL51-2　Medical education with XR technology
……*Tadatsugu Morimoto,* Dept. of Orthop. Surg., Saga Univ.…S496

15：55～17：15　Symposium 62　Moderators　H. Taneichi, S. Imagama
A new standard for training spine surgeons

3-12-S62-1　Attractive surgical education: From a surgeon studying medical education
……*Hideki Takami,* Dept. of Surg., Nagoya Univ. Hosp.…S497

3-12-S62-2　A message to the next generation of spine surgeons: My attitude towards intractable spinal diseases: Demonic hand and Buddhist heart
……*Yukihiro Matsuyama,* Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine…S497

3-12-S62-3　The importance of cadaver surgical training for spine surgeons
……*Hiroshi Moridaira, et al.,* Dept. of Orthop. Surg., Dokkyo Medical Univ.…S498

3-12-S62-4　Spine surgery training in the animal laboratory
……*Hiroaki Nakashima, et al.,* Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S498

3-12-S62-5　The new era of spine surgery: AI-driven advances in diagnostic precision and research support
……*Satoshi Maki, et al.,* Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.…S499

17：30 ～ 18：30　Instructional lecture 52　Moderator　K. Goto

3-12-EL52　Current status and future perspectives of computer technologies in orthopaedic surgery
……*Masaki Takao, et al.,* Dept. of Orthop. Surg., Ehime Univ. Graduate School of Medicine…S500

3rd Day　May 24　Room 13

TIF, G409)

8：00 ～ 9：00　Instructional lecture 53　Moderator　K. Fujita

3-13-EL53　Hand surgery in super aging society
……*Michiro Yamamoto,* Div. of Human Enhancement & Hand Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.…S500

9：15 ～ 10：15　Instructional lecture 54　Moderator　T. Kunisada

3-13-EL54　Utility and importance of pathological diagnosis in orthopaedic diseases
……*Yoshinao Oda,* Dept. of Anatomic Pathol., Kyushu Univ.…S501

10：30 ～ 11：30　Free papers 57　Tumor: Miscellaneous　Moderators　H. Futani, T. Akiyama

3-13-1　Interim analysis of the efficacy and safety of auranofin for progressive desmoid-type fibromatosis: An open-label phase II study
……*Yoshihiro Nishida, et al.,* Dept. of Rehabilitation, Nagoya Univ. Hosp.…S502

3-13-2　Real-world experience of selumetinib for plexiform neurofibromas in pediatric patients with neurofibromatosis 1: A single-center analysis
……*Yoshihiro Nishida, et al.,* Dept. of Rehabilitation, Nagoya Univ. Hosp.…S502

3-13-3　Issue of the follow-up for patients with neurofibromatosis type 1
……*Naoki Oike, et al.,* Div. of Orthop. Surg., Dept. of Regenerative and Transplant Medicine, Niigata Univ. Graduate School of Medical and Dental Sciences…S503

3-13-4　Comparison of genetic testing methods for detecting GNAS variants in intramuscular myxoma
……*Munehisa Kito, et al.,* Dept. of Orthop. Surg., Shinshu Univ.…S503

3-13-5　Single cell and spatial transcriptomic analysis of giant cell tumor of bone
……*Yo Kimura, et al.,* Div. of Cellular Signaling, National Cancer Center Research Institute…S504

3-13-6　Risk factors of post-operative fracture after curettage for giant-cell rich bone tumors around the knee……*Yoichi Kaneuchi,* Dept. of Orthop. Surg., Fukushima Medical Univ.…S504

12：00 ～ 13：10　Luncheon seminar 37　Moderator　H. Hagino

3-13-LS37　Osteoporosis treatment targeting fracture prevention
……*Sakae Tanaka,* Orthop. Surg., Sensory and Motor System Medicine, Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo…S505

13：25 ～ 14：25　Free papers 58　Tumor: Metastatic disease　Moderators　H. Sugiura, K. Honoki

3-13-7　Curative-intent surgery for solitary bone metastasis from extremity and trunk wall sarcoma: What was the outcome?
……*Liuzhe Zhang, et al.,* Dept. of Orthop. Surg., The Univ. of Tokyo Hosp., The Univ. of Tokyo…S506

3-13-8　Risk factors for total blood loss including hidden blood loss in the treatment of metastatic spinal tumors……*Hiroshi Uei, et al.,* Dept. of Orthop. Surg., Nihon Univ. Hosp.…S506

3-13-9　Number of fusion segments in MISt surgery for spinal metastases
……*Hirokatsu Sawada, et al.,* Dept. of Orthop. Surg., Nihon Univ.…S507

3-13-10　Late-onset bone metastasis in patient with gastric cancer
……*Naoki Kobayashi, et al.,* Dept. of Orthop., Juntendo Univ.…S507

14：40～15：40 Instructional lecture 55 Moderator T. Matsushita

15：55～17：15 Symposium 63 Moderators H. Yamashita, S. Murai
Recent challenges in traffic accident treatment

17：30～18：30 Free papers 59 Pelvic fracture Moderators T. Mae, Y. Kokubo