

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
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- 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
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- 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
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- 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
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- 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
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- 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
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- 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
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- 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
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- 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
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- 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
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- 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

1-5-2	Long-term outcomes of mega-prostheses for distal femoral tumors <i>Seiji Shimomura, et al.</i> , Dept. of Musculoskeletal Oncology and Rehabilitation, National Cancer Center Hosp.···S34
1-5-3	Identification of p21-positive immature osteoblasts in the long bone of growing mice <i>Masato Saito, et al.</i> , Dept. of Orthop. Surg., Keio Univ.···S35
1-5-4	Age-related genomic alterations in osteosarcoma <i>Hidetatsu Otani, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.···S35
1-5-5	The relationship between radiological change and pathological effect and prognosis after chemotherapy in osteosarcoma <i>Shinichirou Yoshida, et al.</i> , Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine···S36
1-5-6	Clinical outcomes of osteosarcoma with lung metastasis thorough the classification by chronological order <i>Kazuha Nakabachi, et al.</i> , Dept. of Musculoskeletal Oncol., Hokkaido Cancer Center···S36

12 : 00 ~ 13 : 10	Luncheon seminar 4	Moderator S. Tanaka
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1-5-LS4	Bone quality deterioration risks severe vertebral and femoral fractures-accurate bone quality assessment-based therapy <i>Mitsuru Saito</i> , Dept. of Orthop. Surg., The Jikei Univ. School of Medicine···S37
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15 : 00 ~ 16 : 20	Symposium 4	Moderators M. Mawatari, T. Sakai
The latest insights on idiopathic femoral head necrosis		

1-5-S4-1	Epidemiology of osteonecrosis of the femoral head ··· <i>Wakaba Fukushima</i> , Dept. of Public Health, Osaka Metropolitan Univ. Graduate School of Medicine···S38
1-5-S4-2	Neutrophil extracellular traps involved in the development of idiopathic osteonecrosis of the femoral head ··········· <i>Tomohiro Shimizu, et al.</i> , Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S38
1-5-S4-3	Combined effects of three existing drugs on prevention of steroid-associated osteonecrosis of the femoral head ··········· <i>Goro Motomura, et al.</i> , Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.···S39
1-5-S4-4	Autologous concentrated bone marrow injection for idiopathic osteonecrosis of the femoral head <i>Yasuhiro Homma, et al.</i> , Dept. of Orthop. Surg., Juntendo Tokyo Koto Geriatric Medical Center···S39
1-5-S4-5	History and prospects of the development of minimally invasive regenerative medicine for ONFH <i>Yutaka Kuroda, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.···S40

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		

1-5-S5-1	A novel role of spinal reflex circuits in mediating voluntary control of arm and finger movements <i>Kazuhiro Seki</i> , National Center of Neurology and Psychiatry···S41
1-5-S5-2	Activation mechanism of motor function originating from tendons <i>Hiroshi Asahara</i> , Dept. of Systems BioMedicine, Institute of Science Tokyo···S41
1-5-S5-3	The role of genetics in sports: Improving sports performance through understanding your genetic profiles ········· <i>Noriyuki Fuku</i> , Grad. Sch. of Health and Sports Sci., Juntendo Univ.···S42
1-5-S5-4	New pathophysiology of musculoskeletal diseases revealed by a novel optical bone clearing technique (Osteo-DISCO method) <i>Shingo Sato, et al.</i> , Center for Innovative Cancer Treatment, Institute of Science Tokyo···S42

- 1-5-S5-5 Locomotive functions govern the network of organs throughout the entire body: Importance and validity of the concept of locomotive syndrome *Yasuhiro Sawada*, Nat'l Rehab. Ctr. for Disab. ...S43
- 1-5-S5-6 Regulatory mechanisms and motor function of slow and fast muscles
..... *Satoru Takahashi*, Dept. of AnaEmb., Inst. of Med., Univ. of Tsukuba ...S43

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

8 : 00 ~ 9 : 00	Free papers 5 Elbow	Moderators S. Uchiyama, Y. Nishiura
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- 1-6-1 Differences of visibility in arthroscopy of elbow joint using nanoscope based on experience level
..... *Sho Yamauchi, et al.*, Dept. of Musculoskeletal Sports Medicine,
Research and Innovation, Nagoya City Univ., Graduate School of Medical Sciences ...S44
- 1-6-2 Contribution to nerve regeneration of supercharge (reverse) end-to-side nerve transfer for severe cubital tunnel syndrome *Masaru Munemori, et al.*, Dept. of Orthop. Surg.,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S44
- 1-6-3 Clinical outcome of lateral collateral ligament repair for lateral humeral epicondylitis with ligament disorder *Masaru Munemori, et al.*, Dept. of Orthop. Surg.,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S45
- 1-6-4 Debridement and repair with tendon advancement using suture bridging for lateral epicondylitis: Clinical outcomes and findings of magnetic resonance imaging
..... *Kanji Higashi, et al.*, Dept. of Orthop. Surg., Yokohama City Univ. Hosp. ...S45
- 1-6-5 Efficacy and predictive factors of focused shock wave therapy for refractory lateral epicondylitis
..... *Yutoku Yamada, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ. ...S46
- 1-6-6 Bursa plication for non-infectious olecranon bursitis
..... *Kenichi Takashima, et al.*, Dept. of Orthop. Surg., Takikawa Municipal Hosp. ...S46

9 : 15 ~ 10 : 15	Instructional lecture 11	Moderator T. Wada
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- 1-6-EL11-1 Screening and conservative treatment for osteochondritis dissecans of the capitellum
..... *Tetsuya Matsuura*, Dept. of Rehabil. Med., Tokushima Univ. Hosp. ...S47
- 1-6-EL11-2 Osteochondritis dissecans of the elbow: Recent evolution
..... *Masatoshi Takahara*, Izumi Orthop. Hosp. ...S47

10 : 30 ~ 11 : 30	Free papers 6 RA: Disease activity	Moderators T. Matsubara, K. Maeda
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- 1-6-7 Relationship between long-term progression of rheumatoid wrist deterioration and disease activity
..... *Hiroyuki Wada, et al.*, Dept. of Rheumatol., Niigata Rheumatic Center ...S48
- 1-6-8 Impact of early therapy for radiographic destruction in patients with early rheumatoid arthritis from real-world data in the last decade ... *Kentaro Takeuchi, et al.*, Dept. of Orthop. Surg., Yamagata Univ. ...S48
- 1-6-9 Microarchitectural analysis of the metacarpophalangeal joint using HR-pQCT in patients with rheumatoid arthritis *Kounosuke Watanabe, et al.*, Dept. of Orthop. Surg.,
Nagasaki Univ. Graduate School of Biomedical Sciences ...S49
- 1-6-10 The relationship between PROMs and disease activity, locomotive syndrome risk level, and physical function assessment in patients with rheumatoid arthritis
..... *Rena Wakabayashi, et al.*, Dept. of Orthop. Surg., Koto Hosp. ...S49
- 1-6-11 Serum D-dimer levels as a biomarker of rheumatoid arthritis
..... *Masato Sonobe, et al.*, Dept. of Orthop. Surg., Toho Univ. (Sakura) ...S50
- 1-6-12 Comparison of the efficacy of tofacitinib and baricitinib in RA and factors predicting exacerbation of disease activity after treatment
..... *Masanori Tsubosaka, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S50

12 : 00 ~ 13 : 10	Luncheon seminar 5	Moderators N. Adachi, H. Ito
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| 1-6-LS5-1 | Therapeutic strategy based on the etiology of early knee osteoarthritis from Iwaki cohort study
..... <i>Eiji Sasaki</i> , Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S51 | |
| 1-6-LS5-2 | The position of surgery and rehabilitation in the treatment of rheumatoid arthritis
..... <i>Shuji Asai, et al.</i> , Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,
Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S51 | |

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

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| 1-6-S6-1 | Late-onset rheumatoid arthritis <i>Yuya Takakubo, et al.</i> , Dept. of Orthop. Surg., Yamagata Univ...S52 | |
| 1-6-S6-2 | Differential diagnosis and treatment of late-onset rheumatoid arthritis and polymyalgia
rheumatica/RS3PE Syndrome <i>Tadashi Okano</i> , Center for Senile Degenerative Disorders,
Osaka Metropolitan Univ. Graduate School of Medicine...S52 | |
| 1-6-S6-3 | Crystal induced arthritis: Differential diagnosis between late-onset RA and CPP crystal induced
arthritis ("pseudogout")
..... <i>Ikuko Masuda</i> , Jujo Takeda Rehabilitation Hosp., Center for Rheumatic Diseases...S53 | |
| 1-6-S6-4 | Late-onset rheumatoid arthritis (LORA) and similar conditions: Differentiating from osteoarthritis
..... <i>Kensuke Koyama</i> , Dept. of Rheumatology, Nirasaki City Hosp...S53 | |

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

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| 1-6-S7-1 | Is annual ultrasound elbow screening effective for young baseball players?
..... <i>Yoshikazu Kida, et al.</i> , Dept. of Orthop.,
Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine...S54 | |
| 1-6-S7-2 | Surgical treatment for osteochondritis dissecans of the elbow: The effect of platelet-rich fibrin on
osteochondral defects in rabbits
..... <i>Masahiro Maruyama, et al.</i> , Dept. of Orthop. Surg., Yamagata Univ...S54 | |
| 1-6-S7-3 | Outcome of aggressive conservative treatment for capitellar OCD in adolescent baseball players
..... <i>Norimasa Takahashi, et al.</i> , Funabashi Orthop. Hosp...S55 | |
| 1-6-S7-4 | Conservative treatment of osteochondritis dissecans of the humeral capitellum: Focused
extracorporeal shock wave therapy ... <i>Yasuhiro Mitsui, et al.</i> , Hyakutake Orthop. & Sports Clinic...S55 | |
| 1-6-S7-5 | Our surgical treatment strategy for osteochondritis dissecans of the humeral capitellum
..... <i>Kazuki Sato, et al.</i> , Institute for Integrated Sports Medicine, Keio Univ...S56 | |

1st Day May 22 Room 7	(TIF, Hall D1)
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8 : 00 ~ 9 : 00	Free papers 7 Cervical spine	Moderators Y. Arai, A. Minamide
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| 1-7-1 | Risk of residual paralysis based on progression of segmental motor paralysis following anterior
cervical spine surgery <i>Hiroaki Onuma, et al.</i> , Dept. of Orthop. and Spinal Surg.,
Graduate School of Medical and Dental Sciences, Institute of Science Tokyo...S57 | |
| 1-7-2 | Investigation of risk factors of C5 palsy after anterior cervical spine surgery
..... <i>Yu Matsukura, et al.</i> , Dept. of Orthop. and Spinal Surg.,
Graduate School of Medical and Dental Sciences, Institute of Science Tokyo...S57 | |
| 1-7-3 | The risk factors of the poor prognosis in patients with dropped head syndrome
..... <i>Kenji Endo, et al.</i> , Dept. of Orthop. Surg., Tokyo Medical Univ...S58 | |
| 1-7-4 | Quantitative evaluation of contrast-enhanced MRI findings in dropped head syndrome
..... <i>Taro Uehara, et al.</i> , Dept. of Orthop. Surg., Tokyo Medical Univ...S58 | |

- 1-7-5 Nuchal ligament reconstruction surgery in patients with dropped head syndrome
.....*Kenji Endo, et al.*, Dept. of Orthop. Surg., Tokyo Medical Univ...S59
- 1-7-6 Disequilibrium of neurotransmitters in patients with dropped head syndrome: Examination of blood
monoamine levels*Haruki Funao, et al.*, Dept. of Orthop. Surg.,
International Univ. of Health and Welfare Narita Hosp...S59

9 : 15 ~ 10 : 15	Free papers 8 Lumbar spine 1	Moderators T. Iida, T. Kitagawa
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- 1-7-7 Degenerative lumbar spondylolisthesis requires decompression from the ligamentum flavum
cephalad to the chevron*Tomowaki Nakagawa, et al.*, Sendai Orthop. Hosp...S60
- 1-7-8 Implantation of an acellular, bioresorbable, ultra-purified in-situ forming gel after discectomy for
lumbar intervertebral disc herniation*Katsuhisa Yamada, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S60
- 1-7-9 Correlation between quantitative cage pressures and qualitative evaluations based on extraction
strength in lumbar lateral interbody fusions: A cadaveric study
.....*Takashi Sono, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ...S61
- 1-7-10 Effect of the number of remaining teeth on pseudoarthrosis in lumbar interbody fusion:
A retrospective cohort study*Katsuro Ura, et al.*, Dept. of Orthop. Surg., Otaru General Hosp...S61
- 1-7-11 Epidemiology and its adolescent treatment history of lumbar spondylolysis in Japanese professional
baseball players*Kinshi Kato, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ...S62
- 1-7-12 Analysis of 1667 lumbar spondylolysis using a novel three-dimensional fracture type classification
.....*Satoru Egawa, et al.*, Dept. of Orthop. and Trauma Research,
Graduate School of Medical and Dental Sciences, Institute of Science Tokyo...S62

10 : 30 ~ 11 : 30	Invited lecture 1 (English)	Moderator H. Terai
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- 1-7-IL1-1 Development of bone-targeted antibiotics for chronic osteomyelitis
.....*Edward M. Schwarz*, Dept. of Orthop., Univ. Rochester, Rochester, NY, USA...S63
- 1-7-IL1-2 Recent trends in the treatment of spinal infections
.....*Hideki Nagashima*, Dept. of Orthop. Surg., Tottori Univ...S63

15 : 00 ~ 16 : 00	Invited lecture 2 (English)	Moderator H. Ozawa
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- 1-7-IL2-1 Robotic assistant surgery for severe and complex spinal deformity
.....*Yong Hai, et al.*, Dept. of Orthop. Surg., Beijing Chaoyang Hosp., Beijing, China...S64
- 1-7-IL2-2 Evolution of minimally invasive surgery for adult spinal deformities: Efforts to reduce
complications and improve correction
.....*Yoshihisa Kotani*, Dept. of Orthop. Surg., Kansai Medical Univ. Medical Center...S64

16 : 15 ~ 17 : 15	Invited lecture 3 (English)	Moderator M. Koda
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- 1-7-IL3-1 Unique anatomy of deep extensor muscles as a key to prevention of kyphosis after posterior
decompression surgery of cervical spine
.....*Kazuya Kitamura, et al.*, Dept. of Orthop. Surg., National Defense Medical College...S65
- 1-7-IL3-2 Challenging dogma in cervical spine surgery: Swim against the tide
.....*Anna M. MacDowall*, Dept. Surg. Sci., Uppsala Univ.,
Uppsala/Dept. Orthop., Acad Hosp., Uppsala, Sweden...S65

17 : 30 ~ 18 : 30	Invited lecture 4 (English)	Moderator J. Takahashi
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- 1-7-IL4-1 The treatment of idiopathic scoliosis in children and adolescents before skeletal maturity
.....*Suken A. Shah*, Dept. of Orthop. Surg., Nemours Children's Hosp...S66
- 1-7-IL4-2 Treatment of adolescent idiopathic scoliosis after skeletal maturity
.....*Kota Watanabe*, Dept. of Orthop. Surg., Keio Univ...S66

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

8 : 00 ~ 9 : 00	Free papers 9 Sports: Miscellaneous	Moderators K. Sugimoto, M. Hangai
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- 1-8-1 The relationship between 25(OH) vitamin D concentrations, physical performance, and muscle mass in school-age children: KID loco 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
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- 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
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- 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
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- 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
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- 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
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- 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
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- 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
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- 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
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- 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
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- 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
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- 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 Funaiuchi, 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
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- 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 Pholsawatthai, 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
 Basic research/miscellaneous**

Moderators K. Matsumoto, T. Ohnishi

- 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 *Fuji 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
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- 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 loco 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
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- 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
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- 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

- 1-B-5 Association between elevated medial tibial cartilage T1rho value 1-year postoperatively and knee joint degeneration 10-year postoperatively in ACL reconstruction
 *Shotaro Watanabe, et al.*, Dept. of Orthop. Surg.,
 Sports Medicine & Shoulder Surg., Univ. of California, San Francisco, CA, USA...S126
- 1-B-6 Relationship of patient-reported outcomes 10 years after ACL reconstruction and knee joint degeneration: WORMS and quantitative MRI assessments
 *Shotaro Watanabe, et al.*, Dept. of Orthop. Surg.,
 Sports Medicine & Shoulder Surg., Univ. of California, San Francisco, CA, USA...S126

9 : 15 ~ 10 : 15	Free papers 19	ACL 2	Moderators	T. Soejima, M. Nagashima
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- 1-B-7 Concomitant injuries in ACL rupture: Impact on knee instability: Focus on meniscal, MCL, and anterolateral complex lesions *Hiroaki Fukushima, et al.*, Dept. of Orthop. Surg.,
 Nagoya City Univ., Graduate School of Medical Sciences...S127
- 1-B-8 Pivot-shift like phenomenon in the contralateral uninjured knee is associated with postoperative residual pivot-shift phenomenon after ACL reconstruction
 *Naosuke Nagata, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S127
- 1-B-9 Knee muscle strength in anterior cruciate ligament reconstruction using quadriceps tendon: Comparison of single and semilunar suture cases
 *Shogo Kurokawa, et al.*, Dept. of Orthop. Surg., Hyogo Rehabilitation Center Hosp....S128
- 1-B-10 Comparison of anterior knee laxity after anterior cruciate ligament (ACL) reconstruction between different autografts
 *Tomoki Otori, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ....S128
- 1-B-11 Time course of lateral compartment cartilage injury following anterior cruciate ligament and lateral meniscus injuries *Akira Tsujii, et al.*, Dept. of Sports Medical Biomechanics,
 Graduate School of Medicine, Osaka Univ....S129
- 1-B-12 Investigation of factors affecting postoperative outcomes of medial meniscus repair during anterior cruciate ligament reconstruction
 *Shinya Yanagisawa, et al.*, Dept. of Orthop. Surg., Zenshukai Hosp....S129

10 : 30 ~ 11 : 30	Free papers 20	Sports: Knee	Moderators	Y. Arai, H. Aoki
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- 1-B-13 Arthroscopic findings around the meniscus using indocyanine green (ICG) fluorescence
 *Tamiko Kamimura*, Dept. of Orthop. Surg., Tokorozawa Chuo Hosp....S130
- 1-B-14 Biomechanical analysis of circumferential fiber augmentation (CFA) in suture repair for radial tear in the midbody of meniscus
 *Tomoki Otori, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ....S130
- 1-B-15 Analysis for re-injury after inside-out meniscal repair for vertical meniscal tears
 *Akira Katsumata, et al.*, Dept. of Orthop. Surg., Obihiro Kyokai Hosp....S131
- 1-B-16 Effect of knee extensor mechanism on knee bone morphology and accessory ossicles in elite male soccer players *Takuya Kinoshita, et al.*, Dept. of Orthop. Surg., Osaka Saiseikai Nakatsu Hosp....S131
- 1-B-17 Rotational instability of the knee in patients with general joint laxity
 *Akira Maeyama, et al.*, Dept. of Orthop. Surg., Fukuoka Univ....S132
- 1-B-18 Short-term results of UKA and how to for medial compartment osteoarthritis of the knee: Focusing on the level of sports activities
 *Tatsunori Iwai, et al.*, Dept. of Orthop. Surg., Toho Univ. (Sakura)...S132

12 : 00 ~ 13 : 10	Luncheon seminar 10	Moderator	H. Ishibashi
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- 1-B-LS10 Physical activity guide for health promotion 2023 by the Ministry of Health, Labour and Welfare
 *Susumu Sawada*, Faculty of Sport Sciences, Waseda Univ....S133

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

1-C-2	Acoustic characterization of tendon gliding sounds in carpal tunnel syndrome using an artificial intelligence model ······ <i>Atsuyuki Inui, et al.</i> , Dept. of Orthop. Surg., Kobe Univ. Hosp.···S140
1-C-3	Automatic detection of similar ultrasound images using AI and slam technology ····· <i>Ryuichi Nakahara, et al.</i> , Dept. of Musculoskeletal Health Promotion, Faculty of Medicine, Dentistry and Pharmaceutical Sciences, Okayama Univ.···S141
1-C-4	Deep learning approach of position assistance tools using ultrasound guide for hip arthroscopy ····· <i>Shota Higashihira, et al.</i> , Dept. of Orthop. Surg., Yokohama City Univ. Medical Center···S141
1-C-5	Development of an artificial intelligence model to automatically measure the deformity of tibial shaft fractures ······ <i>Shuya Takahashi, et al.</i> , Dept. of Orthop. Surg., Teikyo Univ.···S142
1-C-6	Examination of interactive open AI in comparison with the Japanese guidelines for the treatment of hallux valgus ······ <i>Masatake Matsuoka, et al.</i> , Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S142

9 : 15 ~ 10 : 15	Free papers 22	AI: Miscellaneous	Moderators	Y. Aoki, Y. Hagiwara
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1-C-7	Performance evaluation of GPT-4o and GPT-3.5turbo with retrieval-augmented generation on the Japanese orthopaedic specialist exams ····· <i>Juntaro Maruyama, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.···S143
1-C-8	Prediction of drill penetration with a time-series deep learning model using force sensory information ····· <i>Hirotatsu Imai, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.···S143
1-C-9	Multimodal artificial intelligence to estimate sarcopenia from blood tests and chest X-rays ····· <i>Kosuke Kita, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.···S144
1-C-10	Locomotive syndrome screening using single-camera gait video analysis with deep learning ····· <i>Junichi Kushioka, et al.</i> , Spine Center, Shonan Fujisawa Tokushukai Hosp.···S144
1-C-11	Diagnostic AI can be calibrated, although its diagnostic performance is degraded for external facility data ······ <i>Yuichi Imoto, et al.</i> , Dept. of Orthop. Surg., Teikyo Univ.···S145
1-C-12	Development of prognostic tool using artificial intelligence with pathological images for soft tissue sarcoma ······ <i>Tomohito Hagi, et al.</i> , Dept. of Musculoskeletal Surg., Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine···S145

10 : 30 ~ 11 : 30	Free papers 23	AI: Lumbar spine	Moderators	K. Nakanishi, S. Orita
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1-C-13	Deep learning to predict hip disease using lumbar spine X-rays ····· <i>Masashi Tsujino, et al.</i> , Dept. of Orthop. Surg., Osaka Metropolitan Univ. Graduate School of Medicine···S146
1-C-14	Lumbar spinal stenosis screening using single-camera gait video analysis with deep learning ····· <i>Junichi Kushioka, et al.</i> , Spine Center, Shonan Fujisawa Tokushukai Hosp.···S146
1-C-15	An algorithm for generating the imitate 3D-MRI/CT fusion images from the plain CT of lumbar spine using generative adversarial networks ······ <i>Soya Miura, et al.</i> , Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S147
1-C-16	An algorithm for creating the imitated myelography CT from the plain CT of the lumbar spine using generative adversarial networks ······ <i>Ryo Itoga, et al.</i> , Dept. of Orthop. Surg., Eniwa Hosp.···S147
1-C-17	Deep learning-based detection of lumbar spinal canal stenosis using convolutional neural networks: Multitask and multimodal analysis ······ <i>Hisataka Suzuki, et al.</i> , Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S148
1-C-18	A new classification of intervertebral disc degeneration using artificial intelligence ····· <i>Hisataka Suzuki, et al.</i> , Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S148

12 : 00 ~ 13 : 10	Luncheon seminar 11	Moderator R. Kuroda
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- 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
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- 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
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- 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
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- 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 New strategies for treating ossification of the spinal ligaments	Moderators T. Aizawa, T. Yoshii
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- 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

2-1-S9-2	The relationship between visceral fat and ossification of the posterior longitudinal ligament (OPLL): A new perspective on obesity treatment interventions <i>Tsutomu Endo, et al.</i> , Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.S157
2-1-S9-3	Surgical strategy for ossification of the posterior longitudinal ligament of cervical spine <i>Masao Koda, et al.</i> , Dept. of Orthop. Surg., Univ. of TsukubaS158
2-1-S9-4	Surgical treatment strategy for ossification of spinal ligament in the thoracic spine <i>Hiroaki Nakashima, et al.</i> , Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.S158
2-1-S9-5	Transcranial motor-evoked potential for preventing neurological deficit during ossification of posterior longitudinal ligament surgery <i>Go Yoshida, et al.</i> , Dept. of Orthop. Surg., Hamamatsu Univ. School of MedicineS159

9 : 25 ~ 10 : 45	Symposium 10	Moderators M. Yamazaki, S. Okada
Current status and challenges in regenerative treatments for spinal cord injury		

2-1-S10-1	Regenerative therapy for spinal cord injury using iPS cells <i>Narihito Nagoshi, et al.</i> , Dept. of Orthop. Surg., Keio Univ.S160
2-1-S10-2	Bone marrow mesenchymal stem cell therapy for chronic spinal cord injury <i>Ryunosuke Fukushi, et al.</i> , Dept. of Orthop. Surg., Sapporo Medical Univ.S160
2-1-S10-3	Clinical and basic research into the pathology of spinal cord injury <i>Kazu Kobayakawa, et al.</i> , Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.S161
2-1-S10-4	Development of a novel neuroprotection drug for spinal cord injury through reduction of secondary injury <i>Ken Kadoya</i> , Dept. of Advanced Medicine for Locomotor System, Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.S161
2-1-S10-5	Functional regeneration therapy using hybrid assistive limb for patients with spinal cord injury and lesions <i>Masashi Yamazaki, et al.</i> , Dept. of Orthop. Surg., Univ. of TsukubaS162

11 : 00 ~ 12 : 00	Instructional lecture 16	Moderator N. Kawahara
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2-1-EL16	History of spinal instrumentation surgery <i>Manabu Ito</i> , Dept. of Orthop. Surg., NHO Hokkaido Medical CenterS163
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12 : 30 ~ 13 : 40	Luncheon seminar 12	Moderator H. Iwasaki
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2-1-LS12-1	The innovation of spinal treatment through advanced imaging technology: Tackling postoperative complications with AI and ultrasound fusion <i>Hiroki Katayama, et al.</i> , Musculoskeletal Science, Yokohama City Univ. Graduate School of MedicineS164
2-1-LS12-2	Revolutionizing cervical spine care through ultrasound innovation: From conservative treatment to surgery <i>Satoshi Takada</i> , Dept. of Orthop. Surg., Dokkyo Medical Univ.S164

13 : 55 ~ 15 : 15	Symposium 11	Moderators T. Kotani, H. Sudo
The role of AI (artificial intelligence) in the diagnosis and treatment of scoliosis		

2-1-S11-1	Development of AI-based software for automated sizing and placement of pedicle screws in posterior correction and fusion surgery for scoliosis <i>Kota Watanabe</i> , Dept. of Orthop. Surg., Keio Univ.S165
2-1-S11-2	Machine learning algorithms for predicting future curve in adolescent idiopathic scoliosis patients <i>Shuhei Ohyama, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.S165

- 2-1-S11-3 Automatic measurement of spinal parameters in patients with idiopathic scoliosis using artificial intelligence
 ... *Takahito Fujimori, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ. ...S166
- 2-1-S11-4 An algorithm for using deep learning convolutional neural networks with three-dimensional depth sensor imaging in scoliosis detection
 *Terufumi Kokabu, et al.*, Dept. of Orthop. Surg., Eniwa Hosp. ...S166
- 2-1-S11-5 Development of prediction method for the shoulder balance after scoliosis surgery using artificial neural network *Kazu Kobayakawa, et al.*, Dept. of Orthop. Surg.,
 Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ. ...S167
- 2-1-S11-6 Application of AI-based pose estimation in AIS patients: Current approaches to technical challenges and future prospects *Go Goto, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medical Science, Univ. of Yamanashi ...S167

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

- 2-1-S12-1 The concept of ESST and future directions *Haruki Funao*, Dept. of Orthop. Surg.,
 International Univ. of Health and Welfare Narita Hosp. ...S168
- 2-1-S12-2 Comparison of unilateral laminectomy for bilateral decompression by four surgical methods
 *Zenya Ito, et al.*, Dept. of Orthop. Surg., Aichi Spine Hosp. ...S168
- 2-1-S12-3 Minimally invasive lumbar interbody fusion using the FESS system: PETLIF
 *Koichiro Ono*, Dept. of Orthop. Surg.,
 Field of Surg., Nippon Medical School, Graduate School of Medicine ...S169
- 2-1-S12-4 Full endoscopic TF-LIF using KLIF devices *Masatoshi Morimoto, et al.*, Dept. of Orthop.,
 Institute of Biomedical Sciences, Tokushima Univ. Graduate School ...S169
- 2-1-S12-5 Where will ME-ELIF end up? *Atsushi Tagami, et al.*, Dept. of Orthop. Surg.,
 Nagasaki Univ. Graduate School of Biomedical Sciences ...S170
- 2-1-S12-6 Find safe intervertebral fusion from safety triangle via UBE
 *Kanji Sasaki, et al.*, Dept. of Orthop. Surg., Seirei Hamamatsu Hosp. ...S170

16 : 55 ~ 17 : 55	Instructional lecture 17	Moderator H. Yamada
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- 2-1-EL17 A message to the next generation of spine surgeons: Mental preparation for intractable spinal diseases, surgical techniques, and complications
 *Yukihiro Matsuyama*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine ...S171

2nd Day May 23 Room 2 (TIF, Hall C)
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8 : 00 ~ 9 : 20	Symposium 13	Moderators T. Tajima, A. Nakamae
Comparison of ACL reconstruction techniques		

- 2-2-S13-1 Comparison of the ACL reconstruction techniques: Tips and limitations of the transtibial technique
 *Masayuki Inoue, et al.*, Dept. of Orthop. Surg., NTT East Japan Sapporo Hosp. ...S172
- 2-2-S13-2 Transportal technique in double-bundle anterior cruciate ligament reconstructions
 *Yuji Yamamoto, et al.*, Dept. of Orthop. Surg., Hakodate Municipal Hosp. ...S172
- 2-2-S13-3 Anatomic anterior cruciate ligament reconstruction using the outside-in technique
 *Yuichi Hoshino, et al.*, Dept. of Orthop. Surg., Kobe Univ. ...S173

- 2-2-S13-4 Anatomical rectangular tunnel ACL reconstruction with bone-patellar tendon-bone or quadriceps tendon-bone graft using transportal technique
 *Shuji Taketomi, et al.*, Orthop. Surg., Sensory and Motor System Medicine, Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo...S173
- 2-2-S13-5 Remnant-preserving single-bundle ACL augmentation
 *Atsuo Nakamae, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ....S174
- 2-2-S13-6 LEAP (lateral extra-articular procedure): ALL reconstruction, LET
 *Masahiro Nozaki, et al.*, Dept. of Orthop. Surg., Nagoya City Univ., Graduate School of Medical Sciences...S174

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

- 2-2-S14-1 Concomitant meniscus repair with anterior cruciate ligament reconstruction
 *Yuka Kimura, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S175
- 2-2-S14-2 Meniscal repair: Exploring preserving the meniscus: Reflections on the surgery of degenerative meniscus and future prospects
 *Tamiko Kamimura*, Dept. of Orthop. Surg., Tokorozawa Chuo Hosp....S175
- 2-2-S14-3 Reacquisition of meniscus function by centralization for meniscus extrusion
 *Nobutake Ozeki, et al.*, Center for Stem Cell and Regenerative Medicine, Institute of Science Tokyo...S176
- 2-2-S14-4 Does the circumferential fiber augmentation technique change the future of meniscal surgery?
 *Keisuke Kita, et al.*, Dept. of Sports Orthop., JCHO Osaka Hosp....S176
- 2-2-S14-5 Meniscal reconstruction with autologous tendon graft
 *Yusuke Hashimoto*, Dept. of Sport Sciences, Osaka Univ. of Health and Sports Science...S177

11 : 00 ~ 12 : 00	Instructional lecture 18	Moderator H. Horiuchi
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- 2-2-EL18 Management of knee ligament injuries: Current status and future
 *Yasuyuki Ishibashi*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S178

12 : 30 ~ 13 : 40	Luncheon seminar 13 (English)	Moderator S. Matsuda
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- 2-2-LS13 Clinical outcomes of functional versus mechanical alignment in robotic-arm assisted total knee arthroplasty: A randomised controlled trial
 *Simon W. Young*, Dept. of Orthop. Surg., Univ. of Auckland, NZ...S178

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

- 2-2-S15-1 Features and experience of ROSA for total knee arthroplasty
 *Takafumi Hiranaka*, Dept. of Orthop. Surg. and Joint Surg. Centre...S179
- 2-2-S15-2 Characteristics and advantages of robotic-arm assisted (Mako) total knee arthroplasty
 *Shoichi Kimura, et al.*, Dept. of Orthop. Surg., Eniwa Hosp....S179
- 2-2-S15-3 Clinical results and advantages of robotics TKA (NAVIO, CORI)
 *Osamu Nishiike*, Dept. of Orthop. Surg., Kushiro Sanjikai Hosp....S180
- 2-2-S15-4 Features of DePuy Synthes VELYS robotic-assisted solution and surgical techniques
 *Hiroshi Takagi, et al.*, Dept. of Orthop. Surg., Adachi Medical Center, Tokyo Women's Medical Univ....S180
- 2-2-S15-5 CT-based navigation using augmented reality (AR) smart glass system in total knee arthroplasty
 *Kazunari Ishida, et al.*, Dept. of Orthop. Surg., Kobe Kaisei Hosp....S181

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

- 2-2-S16-1 Mechanical alignment vs. alternative alignment: Is this a modern-day 'witch hunt'?
..... *Takashi Sato*, Dept. of Orthop. Surg., Niigata Medical Center...S182
- 2-2-S16-2 Mechanical alignment method remains gold standard for TKA in 2025
..... *Yukihide Minoda*, Dept. of Orthop. Surg.,
Osaka Metropolitan Univ. Graduate School of Medicine...S182
- 2-2-S16-3 Alignment and soft tissue balance after TKA from the perspective of coronal plane knee kinetics
..... *Yasuo Niki, et al.*, Dept. of Orthop. Surg., Fujita Health Univ. Tokyo...S183
- 2-2-S16-4 Alignment and ligament balance after unrestricted kinematic alignment TKA
..... *Yohei Okada, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ...S183
- 2-2-S16-5 Applied simpler physiological alignment in TKA using anatomical shaped implant
..... *Takashi Miyamoto*, Ainomiyako Knee Joint Replacement Center...S184

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- 2-2-EL19 Early-stage knee osteoarthritis: Present status and perspective
..... *Muneaki Ishijima*, Dept. of Orthop., Juntendo Univ...S185

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physician's perspective *Yasuhiro Mitsui*, Hyakutake Orthop. & Sports Clinic...S186
- 2-3-S17-2 The role of a team doctor in a professional basketball team
..... *Hideki Takeda, et al.*, Dept. of Sports Orthop. Surg., NTT Medical Center Tokyo...S186
- 2-3-S17-3 Who is a good orthopaedic surgeon for professional rugby team?
..... *Sohei Takamori*, Dept. of Spo. Med. and Orthop. Surg., Shonan Kamakura General Hosp...S187
- 2-3-S17-4 Yang yong of team physician
..... *Hiroshi Iwaso, et al.*, Dept. of Orthop. Sports. Surg., Kanto-Rosai Hosp...S187

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Treatment strategies for medial collateral ligament injuries of the elbow in baseball players		

- 2-3-S18-1 Stabilizing mechanism of the elbow joint: Evaluation of elbow valgus stability in
professional player
..... *Daisuke Momma, et al.*, Center for Sports Medicine, Hokkaido Univ. Hosp...S188
- 2-3-S18-2 Imaging diagnosis of valgus instability of the elbow in baseball players: Elbow joint contact area
evaluation by 3DCT *Kyosuke Numaguchi, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S188
- 2-3-S18-3 Conservative treatment including extracorporeal shock wave therapy and platelet-rich plasma
therapy, for ulnar collateral ligament injuries in baseball players
..... *Yusuke Iwahori, et al.*, Sports Med. Joint Cent., Kasugai Orthop. Asahi Hosp...S189
- 2-3-S18-4 UCL reconstruction using the Ito method combined with the twisting technique
..... *Kozo Furushima, et al.*, Keiyu Orthop. Hosp...S189
- 2-3-S18-5 Treatment strategy for ulnar collateral ligament injuries in baseball players:
Ligament repair/internal brace *Yasunori Shimamura*, Kousei Hosp...S190

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2-3-EL20	Throwing shoulder injury update 2025 <i>Hiroyuki Sugaya</i> , Tokyo Sports & Orthop. Clinic	...S191
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2-3-LS14	Principle and surgical procedure of locking plate fixation for high tibial osteotomy <i>Eiji Kondo</i> , Centre for Sports Med., Hokkaido Univ. / <i>Kazunori Yasuda</i> , Sports Medicine Center, Yagi Orthop. Hosp.	...S191
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2-3-S19-2	Pediatric bone tumors and participation in sports activities <i>Robert Nakayama</i> , Dept. of Orthop. Surg., Keio Univ.	...S192
2-3-S19-3	Approach to sports participation from infancy in congenital lower limb diseases <i>Tatsuhiko Ochiai</i> , et al., Dept. of Orthop. Surg., Miyagi Children's Hosp.	...S193
2-3-S19-4	Initiatives to ensure that children with disabilities continue to participate in physical activity into adulthood in Fukushima <i>Yohei Matsuo</i> , Chuzan Hosp.	...S193
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2-3-S20-5	Double-bundle PCL reconstruction using hamstring tendon grafts: How can we manage recurrent/residual posterior tibial translation? <i>Yuta Tachibana</i> , et al., Dept. of Orthop. Surg., Osaka Rosai Hosp.	...S197
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2-3-S20-7	PCL reconstruction using quadriceps tendon-patellar bone autograft <i>Shuji Taketomi</i> , et al., Orthop. Surg., Sensory and Motor System Medicine, Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo	...S198
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The pros and cons of computer-assisted hip surgery

- 2-4-S21-1 Advantages and disadvantages of compact navigation-assisted THA
*Hiroyuki Ogawa, et al.*, Dept. of Orthop. Surg., Hokusuiikai Kinen Hosp.··S200
- 2-4-S21-2 THA with the automatic technology navigation system
*Kazuo Fujiwara*, Dept. of Orthop. Surg., Okayama City Hosp.··S200
- 2-4-S21-3 Accuracy of cup positioning during robotic-assisted total hip arthroplasty
*Shinya Hayashi, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S201
- 2-4-S21-4 Computer assisted acetabular osteotomy for better long-term quality of life
*Hidetoshi Hamada, et al.*, Dept. of Orthop. Medical Engineering,
 Graduate School of Medicine, Osaka Univ.··S201
- 2-4-S21-5 Benefits of CT-based navigation in curved intertrochanteric varus osteotomy
 ···*Tatsuhiko Kutsuna, et al.*, Dept. of Orthop. Surg., Ehime Univ. Graduate School of Medicine··S202
- 2-4-S21-6 Advantages and limitations of computer-assisted hip arthroscopy
*Naomi Kobayashi, et al.*, Dept. of Orthop. Surg., Yokohama City Univ. Medical Center··S202

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Moderators H. Sugiyama, A. Kanaji

Pros and cons revealed by hip arthroscopy in hip treatment

- 2-4-S22-1 Surgical indication and clinical outcome of hip arthroscopic surgery
*Hajime Utsunomiya*, Tokyo Research Institute for Sports Medicine··S203
- 2-4-S22-2 Extra-articular lesions in hip pathologies*Mitsunori Kaya*, Kaya Orthop. Clinic··S203
- 2-4-S22-3 Arthroscopic findings in adult hip dysplasia
*Masanori Fujii*, Dept. of Orthop. Surg., Saga Univ.··S204
- 2-4-S22-4 Hip arthroscopic surgery for labral tear
*Kensuke Fukushima, et al.*, Dept. of Orthop. Surg., Kitasato Univ.··S204
- 2-4-S22-5 Limitations of hip arthroscopy (cases with poor results even when performed by
 a master surgeon)*Soshi Uchida*, Dept. of Orthop. Surg.,
 Wakamatsu Hosp. of the Univ. of Occupational and Environmental Health··S205

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Moderator M. Hasegawa

- 2-4-EL22 Therapeutic strategies of periprosthetic femoral fractures according to three classifications
*Tomonori Baba*, Dept. of Orthop., Juntendo Univ.··S206

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Moderator K. Fukushima

- 2-4-LS15 Total hip arthroplasty in the Reiwa era, unraveling its immutable and trends: Update 2025
Yasuhiro Homma, et al., Dept. of Orthop. Surg., JuntendoTokyo Koto Geriatric Medical Center··S206

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Moderators T. Sawaguchi, A. Mogami

Challenges and treatments for insufficiency peri-hip fractures

- 2-4-S23-1 Current status and issues of fragility fractures of the pelvis
*Naoya Inagaki, et al.*, Dept. of Orthop. Surg.,
 The Kashiwa Hosp. of the Jikei Univ. School of Medicine··S207
- 2-4-S23-2 The diagnosis and treatment for subchondral insufficiency fracture of the femoral head
*Satoshi Ikemura*, Dept. of Orthop. Surg., Red Cross Fukuoka Hosp.··S207
- 2-4-S23-3 Cemented hip arthroplasty for fragile hip fractures: Its effectiveness and safety
*Toshiki Iwase*, Dept. of Orthop. Surg., Hamamatsu Medical Center··S208

- 2-4-S23-4 Problem of treatment for periprosthetic femoral fractures
 *Tomonori Baba, et al.*, Dept. of Orthop., Juntendo Univ. ...S208
- 2-4-S23-5 Treatment strategies for acetabular fractures in the elderly
 *Tomomi Fukuhara, et al.*, Trauma and Reconstr. Surg. Center, Niigata Kenoh Kikan Hosp. ...S209

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Revisiting the past to understand the present in artificial hip joints		

- 2-4-S24-1 Kinematic analysis of gait, chair-rising, and sports activities and patient's satisfaction after total hip arthroplasty *Satoshi Hamai, et al.*, Dept. of Artificial Joints and Biomaterials, Graduate School of Medical Sciences, Kyushu Univ. ...S210
- 2-4-S24-2 Development and clinical application of custom-made acetabular implants using additive manufacturing technology *Tamon Kabata, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ. ...S210
- 2-4-S24-3 The next frontier in computer-assisted THA is soft tissue
 *Masaki Takao, et al.*, Dept. of Orthop. Surg., Ehime Univ. Graduate School of Medicine ...S211
- 2-4-S24-4 Development and prospects of augmented reality-based navigation
 *Hiroyuki Ogawa, et al.*, Dept. of Orthop. Surg., Hokusuiikai Kinen Hosp. ...S211
- 2-4-S24-5 Usefulness of cemented stems and development of implants
 *Daisuke Takahashi, et al.*, Dept. of Orthop. Surg., Hokkaido Univ. Hosp. ...S212

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- 2-4-EL23 Advances in diagnosis and treatment of hip osteoarthritis
 *Nobuhiko Sugano*, Arthroplasty Center, Kawanishi City Medical Center ...S213

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Pathophysiology and treatment strategy for frozen shoulder		

- 2-5-S25-1 Anatomical knowledge of rotator interval: Implication of frozen shoulder
 *Akimoto Nimura*, Dept. of Functional Joint Anatomy, Biomedical Engineering Laboratory, Institute of New Industry Incubation, Institute of Science Tokyo ...S214
- 2-5-S25-2 Pain mechanism and pathology of frozen shoulder
 *Nobuyuki Yamamoto, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine ...S214
- 2-5-S25-3 Conservative treatment for frozen shoulder: Present and future
 *Yoshiaki Itoigawa, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp. ...S215
- 2-5-S25-4 Arthroscopic pan-capsular release for refractory frozen shoulder
 *Norimasa Takahashi, et al.*, Funabashi Orthop. Hosp. ...S215
- 2-5-S25-5 The reality of non-invasive joint manipulation for frozen shoulder
 ... *Yuichi Yamada, et al.*, Dept. of Institute for Integrated Sports Medicine., Saitama City Hosp. ...S216

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Integrating upper limb function reconstruction methods with robotics		

- 2-5-S26-1 Double free muscle transfer for reconstruction of complete avulsion of brachial plexus
 *Yasunori Hattori, et al.*, Dept. of Orthop. Surg., Ogori Daichi General Hosp. ...S217
- 2-5-S26-2 The Oberlin procedure for upper brachial plexus palsy
 *Yusuke Nagano*, Dept. of Orthop. Surg., Hokkaido Medical Center ...S217

- 2-5-S26-3 Partial nerve transfer: Mainly on supercharged end to side anterior interosseous nerve transfer for ulnar nerve paralysis *Takao Omura, et al.*, Dept. of Div. of Surg. Care, Morimachi Hamamatsu Univ. School of Medicine...S218
- 2-5-S26-4 Status and prospects for the development of robotic microsurgery in peripheral nerve surgery field *Satoshi Ichihara, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp....S218
- 2-5-S26-5 Current status for artificial hand and targeted muscle reinnervation *Takehiko Takagi*, Dept. of Orthop. Surg., National Center for Child Health and Development...S219
- 2-5-S26-6 Treatment for brachial plexus injury using wearable robot upper limb hybrid assistive limb *Shigeki Kubota, et al.*, Dept. of School Health Sci., Ibaraki Prefectural Univ. of Health Sciences...S219

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Moderator H. Ikegami

- 2-5-EL24 Which disorders we should apply total elbow arthroplasty for? *Hiromu Ito*, Dept. of Orthop. Surg., Kurashiki Central Hosp....S220

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Moderator N. Okimoto

- 2-5-LS16 Knowledge update on osteoporotic vertebral fractures *Naohisa Miyakoshi*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine...S220

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Moderators T. Arai, Y. Tomori

Surgical treatment of refractory medial epicondylitis

- 2-5-S27-1 Surgical treatment of medial epicondylitis *Yukio Abe, et al.*, Dept. of Orthop. Surg., Saiseikai Shimonoseki General Hosp....S221
- 2-5-S27-2 Open surgical treatment for medial epicondylitis *Taku Suzuki, et al.*, Dept. of Orthop. Surg., Keio Univ....S221
- 2-5-S27-3 Surgical management for refractory medial epicondylitis based on the anatomical characteristics of flexor pronator origin *Kenichi Otsushi, et al.*, Otsushi Orthop. Clinic...S222
- 2-5-S27-4 Problems with open surgery for medial epicondylitis of the humerus from the perspective of long-term results *Hideaki Imada*, Dept. of Orthop. Surg., Higashihiroshima Medical Center...S222
- 2-5-S27-5 Arthroscopic surgery for refractory medial epicondylitis *Takashi Oda, et al.*, Dept. of Orthop. Surg., Saiseikai Otaru Hosp....S223

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Moderators T. Izaki, N. Taniguchi

10 years since the introduction of reverse shoulder arthroplasty

- 2-5-S28-1 Treatment strategies for massive irreparable rotator cuff tear *Kazuhiko Kikugawa*, Dept. of Orthop. Surg., Mazda Hosp....S224
- 2-5-S28-2 Trends of reverse shoulder arthroplasty *Kotaro Yamakado*, Dept. of Orthop. Surg., Fukui General Hosp....S224
- 2-5-S28-3 Medium to long term outcomes of reverse shoulder arthroplasty and factors for poor outcomes *Yuki Matsui, et al.*, Dept. of Orthop. Surg., Kushiro Rosai Hosp....S225
- 2-5-S28-4 Knacks and tricks to improve clinical outcomes in reverse shoulder arthroplasty *Atsushi Urita, et al.*, Dept. of Orthop. Surg., Dokkyo Medical Univ....S225
- 2-5-S28-5 Future direction of reverse shoulder arthroplasty *Noboru Matsumura, et al.*, Dept. of Orthop. Surg., Keio Univ....S226

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Moderator T. Morihara

- 2-5-EL25-1 The dislocation of the shoulder: From the latest evidence *Nobuyuki Yamamoto, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine...S227

- 2-5-EL25-2 Treatment strategies for shoulder instability: Based on the latest insights
 · *Naoya Nishinaka*, Dept. of Orthop. Surg., Fujigaoka Hosp., Showa Univ. ...S227

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8 : 00 ~ 9 : 20 Symposium 29

Moderators H. Kato, M. Amako

Latest evidence on idiopathic anterior and posterior interosseous nerve palsy

- 2-6-S29-1 Pathophysiological considerations of fascicular constriction
 · *Shigeru Kurimoto*, et al., Dept. of Orthop. Surg., Toyota Memorial Hosp. ...S228
- 2-6-S29-2 Ultrasound imagings in idiopathic anterior and posterior interosseous nerve palsy
 · *Yuko Nakashima*, et al., Dept. of Orthop. Surg., Chugoku Rosai Hosp. ...S228
- 2-6-S29-3 Interfascicular neurolysis for spontaneous anterior interosseous nerve palsy
 · *Yasuhito Tajiri*, et al., Tokyo Metrop. Hiroo Hosp. ...S229
- 2-6-S29-4 Pathological findings of idiopathic anterior and posterior interosseous nerve palsy
 · *Yuki Hara*, et al., National Center of Neurology and Psychiatry ...S229
- 2-6-S29-5 Clinical features and prognosis of spontaneous anterior/posterior interosseous nerve palsy
 · *Narihito Kodama*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science ...S230
- 2-6-S29-6 Results after conservative treatment or interfascicular neurolysis of 100 limbs with spontaneous
 anterior interosseous nerve palsy: A Japanese multicenter study
 · *Hiroyuki Kato*, et al., Dept. of Orthop. Surg., Nagareyama Central Hosp. ...S230

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Moderators H. Ishikawa, N. Nakagawa

The latest in total wrist arthroplasty

- 2-6-S30-1 Indications for total wrist arthroplasty
 · *Shosuke Akita*, et al., Dept. of Orthop. Surg., Osaka Minami Medical Center ...S231
- 2-6-S30-2 Three-dimensional preoperative planning for total wrist arthroplasty: Trends in
 implant placement · *Takuji Iwamoto*, et al., Dept. of Orthop. Surg., Keio Univ. ...S231
- 2-6-S30-3 Tips and pitfalls in total wrist arthroplasty · *Yoshiaki Yamanaka*, et al., Dept. of Orthop. Surg.,
 School of Medicine, Univ. of Occupational and Environmental Health ...S232
- 2-6-S30-4 Clinical outcomes of total wrist arthroplasty after minimum 10-year follow-up
 · *Yuichiro Matsui*, et al., Faculty of Dental Medicine, Hokkaido Univ. ...S232
- 2-6-S30-5 The clinical results of total wrist arthroplasty (TWA) for severe rheumatoid wrist dysfunction
 and salvage operation after TWA
 · *Narihito Kodama*, et al., Dept. of Orthop. Surg., Shiga Univ. of Medical Science ...S233

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Moderator K. Iba

- 2-6-EL26-1 The current status of implant arthroplasty for rheumatoid hand
 · *Takuji Iwamoto*, Dept. of Orthop. Surg., Keio Univ. ...S234
- 2-6-EL26-2 Surgical treatment and long-term outcomes for rheumatoid hand
 · *Hajime Ishikawa*, Dept. of Rheumatol., Niigata Rheumatic Center ...S234

12 : 30 ~ 13 : 40 Luncheon seminar 17

Moderator G. Inoue

- 2-6-LS17 Japanese action plan 2025 for the locomotive pain syndrome, focusing on neuropathic
 pain disorders · *Masahiko Sumitani*, Dept. of Pain & Palliative Med., Tokyo Univ. ...S235

13 : 55 ~ 15 : 15 **Symposium 31**

Moderators **K. Ikeda, H. Tanaka**

Linking basic and clinical research in peripheral nerve regeneration

- 2-6-S31-1 Pathophysiology of age-related decline in peripheral nerve axon regeneration focusing on the transcriptional regulator REST *Kiyohito Naito, et al.*, Dept. of Orthop., Juntendo Univ. ...S236
- 2-6-S31-2 Therapeutic strategy of axon regeneration after peripheral nerve injury through an elucidation of the reparative process by Schwann cells
..... *Ken Kadoya*, Dept. of Advanced Medicine for Locomotor System,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S236
- 2-6-S31-3 Application of adipose derived stem cells to peripheral neuropathy
..... *Kaoru Tada, et al.*, Dept. of Orthop. Surg.,
Graduate School of Medical Sciences, Kanazawa Univ. ...S237
- 2-6-S31-4 Bio 3D nerve conduit using bio 3D printer
..... *Ryosuke Ikeguchi, et al.*, Rehabilitation Units, Kyoto Univ. Hosp. ...S237
- 2-6-S31-5 Clinical outcomes of artificial collagen nerve conduits (renerve) and the application in nerve wrapping *Shigeru Kurimoto, et al.*, Dept. of Orthop. Surg., Toyota Memorial Hosp. ...S238
- 2-6-S31-6 Nerve wrapping and capping using nerve conduit
..... *Takuya Uemura, et al.*, Dept. of Orthop. Surg.,
Osaka General Hosp. of West Japan Railway Company ...S238

15 : 20 ~ 16 : 40 **Symposium 32**

Moderators **T. Masatomi, A. Sakai**

Technological innovations in hand surgery

- 2-6-S32-1 3D preoperative planning and related technological developments for upper extremity osteosynthesis
..... *Yuichi Yoshii, et al.*, Dept. of Orthop. Surg., Tokyo Medical Univ. Ibaraki Medical Center ...S239
- 2-6-S32-2 Three-dimensional preoperative planning for elbow and wrist arthroplasty
..... *Tomoki Matsuo, et al.*, Dept. of Orthop. Surg., Ogikubo Hosp. ...S239
- 2-6-S32-3 High-hydrostatic pressure treatment for regenerative therapy
..... *Hiroki Yamanaka, et al.*, Dept. of Plast. and Reconst. Surg., Kyoto Univ. ...S240
- 2-6-S32-4 Congenital differences and innovations for therapeutic strategies
..... *Takehiko Takagi*, Dept. of Orthop. Surg., National Center for Child Health and Development ...S240
- 2-6-S32-5 3D reconstruction from plain X-ray images using artificial intelligence
..... *Ryoya Shiode, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ. ...S241

16 : 55 ~ 17 : 55 **Instructional lecture 27**

Moderator **K. Ikeda**

- 2-6-EL27-1 Epineurium mediating mechanism underlying peripheral nerve repair and regeneration
..... *Ken Kadoya*, Dept. of Advanced Medicine for Locomotor System,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S242
- 2-6-EL27-2 The cutting edge of peripheral nerve reconstruction and regeneration
..... *Ryosuke Ikeguchi, et al.*, Rehabilitation Units, Kyoto Univ. Hosp. ...S242

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8 : 00 ~ 9 : 00 **Free papers 26 Idiopathic scoliosis 1**

Moderators **T. Tsuji, M. Miyagi**

- 2-7-1 Upper instrumented vertebra and cervical alignment could affect the incidence of postoperative proximal junctional kyphosis in adolescent idiopathic scoliosis patients
..... *Tomohiro Banno, et al.*, Div. of Surg. Care, Morimachi, Hamamatsu Univ. School of Med. ...S243

- 2-7-2 AIS survey on post-operative return to sports
 *Tomohiro Banno, et al.*, Div. of Surg. Care, Morimachi, Hamamatsu Univ. School of Med. ...S243
- 2-7-3 Validation study of the muscular dystrophy spine questionnaire (MDSQ) in Japanese in flaccid type neuromuscular scoliosis
 *Wataru Saito, et al.*, Dept. of Orthop. Surg., Kitasato Univ. Medical Center ...S244
- 2-7-4 Long-term changes in the non-fused lumbar intervertebral discs and facet joints in adolescent idiopathic scoliosis: A 10-year postoperative MRI evaluation
 *Takaaki Uto, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medical Sciences, Kanazawa Univ. ...S244
- 2-7-5 The effect of thoracic curve deviation on postoperative alignment in selective lumbar fusion surgery for Lenke 5 AIS *Kentaro Kai, et al.*, Scoliosis Center, Osaka City General Hosp. ...S245
- 2-7-6 Investigation of SRS-22r MCID in Japanese adolescent idiopathic scoliosis patients: Multicenter study using coplanar method
 *Junya Katayanagi, et al.*, Dept. of Orthop. Surg., Dokkyo Medical Univ. Saitama Medical Center ...S245

9 : 25 ~ 10 : 25	Free papers 27 Idiopathic scoliosis 2	Moderators T. Hirano, H. Nojiri
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- 2-7-7 Blood metal ion levels and related factors following corrective fusion surgery for scoliosis
 *Shota Tamagawa, et al.*, Dept. of Orthop., Juntendo Univ. ...S246
- 2-7-8 The intra-rater and inter-rater reliability of the Risser sign, proximal femur maturity index, and proximal humeral ossification system ··· *Ryuichiro Nakanishi, et al.*, Wakayama Medical Univ. ...S246
- 2-7-9 Scoliosis brace treatment improves apical vertebral translation (AVT) of lumbar/thoraco-lumbar curves and avoids surgery in adolescent idiopathic scoliosis
 *Juri Teramoto, et al.*, Dept. of Orthop., Juntendo Univ. ...S247
- 2-7-10 Is spina bifida occulta a risk factor for the progression of adolescent idiopathic scoliosis?
 *Akiko Misawa, et al.*, Dept. of Orthop. Surg., Akita Pref. Center on Development and Disability ...S247
- 2-7-11 Dual rod translation technique for thoracic idiopathic scoliosis provides excellent correction in the coronal and sagittal planes
 *Yusuke Hori, et al.*, Dept. of Orthop. Surg., Scoliosis Center, Osaka City General Hosp. ...S248
- 2-7-12 Bone metabolism in thoracic adolescent idiopathic scoliosis: Evaluation using bone morphometry
 *Masayuki Sato, et al.*, Div. of Orthop. Surg., Dept. of Regenerative and Transplant Medicine,
 Niigata Univ. Graduate School of Medical and Dental Sciences ...S248

11 : 00 ~ 12 : 00	Free papers 28 Lumbar spine 2	Moderators H. Ataka, T. Nikaido
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- 2-7-13 Progression of lumbar spondylolisthesis over 10 years: Findings from a large-scale general population cohort study
 *Takahiro Kozaki, et al.*, Dept. of Orthop. Surg., Wakayama Medical Univ. ...S249
- 2-7-14 Association between histological composition and clinical symptoms in lumbar disc herniation in different age groups
 *Kenichi Kawaguchi, et al.*, Dept. of Rehabilitation Medicine, Kyushu Univ. Hosp. ...S249
- 2-7-15 Associated factors with low back pain in children: Similarities and differences with adult
 *Toru Hirano, et al.*, Dept. of Orthop. Surg.,
 Uonuma Institute of Community Medicine, Niigata Univ. Medical and Dental Hosp. ...S250
- 2-7-16 Preoperative trunk muscle mass measured using MRI influences adjacent segment dysfunction after posterior lumbar interbody fusion ··· *Sosuke Saito, et al.*, Dept. of Orthop. Surg., Nihon Univ. ...S250
- 2-7-17 Lower limb innervation diversity is associated with the 12th rib length and cranio-caudal deviation of the lumbosacral plexus *Juri Teramoto, et al.*, Dept. of Orthop., Juntendo Univ. ...S251
- 2-7-18 Lumbar stiffness disability index correlates more to flexibility including hip joints and lumbar spine than the number of fused segments
 *Masaki Sakamoto, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S251

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

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- 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.,
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- 2-7-21 Safety and efficacy of mirogabalin add-on NSAIDs for peripheral neuropathic pain by lumbar spinal
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 *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
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- 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
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 *Takeshi Inoue*, et al., Dept. of Orthop. Surg., The Jikei Univ. Katsushika Medical Center ...S255

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- 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
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 *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
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 *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
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 *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 Spine osteoporosis 2/spinal infection	Moderators T. Arizono, S. Nakajo
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- 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

- 2-7-32 The impact of nutritional status on patients with osteoporotic thoracolumbar vertebral fractures:
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..... *Hiroki Ushirozako, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine...S259
- 2-7-33 Impact of care-dependency on functional decline following vertebral compression fractures:
A retrospective cohort study
..... *Akira Honda, et al.*, Dept. of Orthop. Surg., Gunma Univ. Graduate School of Medicine...S260
- 2-7-34 Characteristics and risk factors for severe disability in men with osteoporotic vertebral fractures:
The impact of aortic calcification and malnutrition
..... *Tetsuto Yamaura, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ...S260
- 2-7-35 Evaluation of factors involved in implant removal due to surgical site infection after spinal
instrumentation surgery for lumbar degenerative disease
..... *Kazumasa Konishi, et al.*, Dept. of Orthop. Surg., Kyorin Univ...S261
- 2-7-36 Dural sac compression after lumbar interbody fusion predisposes to surgical site infection
..... *Yuichi Hasegawa, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S261

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- 2-8-EL28 Genome analysis of pediatric orthopaedic diseases
..... *Shiro Ikegawa*, Lab. for Statistical and Translational Genetics, IMS, RIKEN...S262

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The forefront of pediatric hip diseases

- 2-8-S33-1 Development of DDH screening system using AI
..... *Tomohiro Shimizu, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S263
- 2-8-S33-2 Basic and clinical research on Perthes disease
..... *Ryosuke Yamaguchi, et al.*, Dept. of Rehabilitation Medicine, Kyushu Univ. Hosp...S263
- 2-8-S33-3 Diagnosis and treatment of developmental dysplasia of the hip
..... *Tomonori Tetsunaga, et al.*, Dept. of Musculoskeletal Health Promotion, Okayama Univ...S264
- 2-8-S33-4 Basic and clinical research for pediatric hip disorders
..... *Hiroshi Kitoh, et al.*, Dept. of Orthop. Surg., Aichi Children's Health and Medical Center...S264
- 2-8-S33-5 Advancements in pediatric hip surgery
..... *Takashi Saisu, et al.*, Chiba Child & Adult Orthop. Clinic...S265

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- 2-8-EL29 The power and attraction of external fixation in the treatment of disordered limb function
..... *Shuji Yamazaki, et al.*, Fuji Orthop. Hosp...S266

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- 2-8-LS19 Kampo treatment approach for pain disease
..... *Tetsuya Sakai*, Dept. of Pain Clinic, Sasebo Kyosai Hosp...S266

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Treatment options for correcting pediatric deformities

- 2-8-S34-1 Treatment using tension band plate
..... *Ryosuke Yamaguchi, et al.*, Dept. of Rehabilitation Medicine, Kyushu Univ. Hosp...S267

- 2-8-S34-2 Percutaneous epiphysiodesis using transphyseal screws for pediatric limb deformities
 *Ryota Tachibana, et al.*, Dept. of Orthop., Shizuoka Children's Hosp. ...S267
- 2-8-S34-3 External fixation in limb reconstruction for children
 *Yoshinobu Oka, et al.*, Dept. of Pediatric Orthop., Graduate School of Medical Science,
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- 2-8-S34-4 Outcomes of deformity correction through endoscopic surgery with drilled dual opposing
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 *Yasuhiro Oikawa, et al.*, Dept. of Orthop. Surg., Chiba Children's Hosp. ...S268

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		

- 2-8-S35-1 Current status and issues of primary and secondary health screening for DDH in Osaka
 *Keisuke Nakagawa, et al.*, Dept. of Pediatr. Orthop., Osaka City General Hosp. ...S269
- 2-8-S35-2 The new DDH screening system in Ehime prefecture
 *Keisuke Sano, et al.*, Dept. of Orthop. Surg., Ehime Rehabilitation Center for Children ...S269
- 2-8-S35-3 Japanese Society of Pediatric Orthopaedics hip screening committee survey on DDH detected
 after the age of 1 year
 ... *Yoshitaka Eguchi, et al.*, Dept. of Orthop. Surg., National Center for Child Health and Development ...S270
- 2-8-S35-4 Effort to improve the screening system for developmental dysplasia of the hip of infant in
 Niigata prefecture
 *Reiko Murakami, et al.*, Div. of Comprehensive Musculoskeletal Medicine,
 Niigata Univ. Grad. Sch. of Medical and Dental Sci. ...S270
- 2-8-S35-5 DDH from the perspective of infant hip joint recommendations
 *Takuya Ogawa, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S271

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- 2-8-EL30 Surgical treatment for developmental dysplasia of the hip: Let's remember two techniques,
 Tanabe open reduction and Salter innominate osteotomy
 *Shigeru Mitani, et al.*, Dept. of Bone and Joint Surg., Kawasaki Medical School ...S272

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8 : 00 ~ 9 : 00	Free papers 32 Knee: TKA & UKA 1	Moderators T. Tomita, R. Gejo
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- 2-9-1 Medial laxity during total knee arthroplasty leads to inferior postoperative clinical outcomes and
 functions in multi-center study
 *Shinichiro Nakamura, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S273
- 2-9-2 Intraoperative implant gap measurement and postoperative outcomes at Oxford mobile UKA using
 the tensor *Kenji Fukunaga, et al.*, Dept. of Orthop. Surg., Osaka Rosai Hosp. ...S273
- 2-9-3 Investigation of factors predicting postoperative alignment in unicompartmental knee arthroplasty
 for knees with over 10 degrees of varus deformity
 *Masaki Mori, et al.*, Dept. of Orthop. Surg., Kagawa Univ. ...S274
- 2-9-4 Changes in mechanical environment of three lower extremity joints after total knee arthroplasty
 *Junki Shiota, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S274

- 2-9-5 Comparison of implant positioning using medic AD with postoperative standing full-limb X-rays and Mako system with postoperative CT in TKA
 *Noriaki Arai, et al.*, Dept. of Orthop. Surg., Teikyo Univ. ...S275
- 2-9-6 Dynamic joint line orientation angle during gait affects patient-reported outcome measures after total knee arthroplasty
 *Sayako Sakai, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S275

9 : 25 ~ 10 : 25	Free papers 33 Knee: TKA & UKA 2	Moderators K. Ryu, H. Inui
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- 2-9-7 Association between lateral laxity and patient satisfaction in cruciate stabilized total knee arthroplasty
 *Kazushige Seki, et al.*, Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine ...S276
- 2-9-8 Effect of residual cartilage of the posterior femoral condyle on femoral component position: Focus on lateral osteoarthritis of the knee
 *Teruyuki Miyasaka, et al.*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine ...S276
- 2-9-9 Anteroposterior movement of lateral femur is related with clinical outcomes in guided motion cruciate substitute total knee arthroplasty
 *Tatsunori Kataoka, et al.*, Dept. of Orthop. Surg., Nippon Medical School Chiba Hokusō Hosp. ...S277
- 2-9-10 Changes in tibial anterior laxity after unicompartmental knee arthroplasty: Associated factors and impact on patient-reported outcomes
 *Yukio Akasaki, et al.*, Dept. of Orthop. Surg., Kyushu Univ. Hosp. ...S277
- 2-9-11 Gender regulates changes in tibial bone quality following unicompartmental knee arthroplasty
 *Takehiro Shimizu, et al.*, Dept. of Orthop. Surg., Tomei Atsugi Hosp. ...S278
- 2-9-12 Retrospective collection of the real world data of knee arthroplasty
 *Kohei Nishitani, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S278

11 : 00 ~ 12 : 00	Free papers 34 Knee: TKA & UKA 3	Moderators A. Kobayashi, K. Harato
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- 2-9-13 Ground kinematically aligned TKA neutralizes lower limb alignment and equalizes coronal rearfoot pressure balance at initial ground contact during walking
 *Yuma Onoi, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S279
- 2-9-14 Integrating elongation patterns with AR-based navigation in kinematic alignment TKA
 *Atsushi Sato, et al.*, Dept. of Orthop. Surg., Fujigaoka Hosp., Showa Univ. ...S279
- 2-9-15 Pre- and postoperative changes in femoral alignment and its effect on ligament balance in TKA using modified restricted inverse KA
 ... *Masayuki Kamimura, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine ...S280
- 2-9-16 Does kinematic alignment (KA) TKA without restriction progress tibial loosening at 4 years postoperatively? *Shigenobu Fukushima, et al.*, Dept. of Orthop. Surg., Yamagata Saisei Hosp. Arthroplasty Center ...S280
- 2-9-17 Kinematic alignment UKA with femur first cut technique can achieve good short-term clinical results
 *Yasuhiro Takahashi, et al.*, Dept. of Orthop. Surg., Omagari Kosei Medical Center ...S281
- 2-9-18 Clinical outcomes of TKA using the functional alignment method with navigation system: A comparison with the mechanical alignment method
 *Zenta Jotoku, et al.*, Dept. of Orthop. Surg., Obihiro Kosei Hosp. ...S281

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- 2-9-LS20-1 Exploring the causes and solutions for knee pain with MRI and ultrasound: The role of PRP therapy *Shinnosuke Hada, et al.*, Dept. of Orthop., Juntendo Univ. ...S282
- 2-9-LS20-2 Real-world data of PRP therapy: Uncovering the truth of treatment effects
 *Yoshitomo Saita, et al.*, Regenerative Medicine for Locomotive Organ, Juntendo Univ. ...S282

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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 MedicineS285		
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 MedicineS286		
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		

- 2-9-34 The correlation between Q-vector and torsional and rotational deformity in recurrent patella dislocation
 *Shigeru Takagi, et al.*, Div. of Orthop. Surg., Dept. of Regenerative and Transplant Medicine, Niigata Univ. Graduate School of Medical and Dental Sciences...S290
- 2-9-35 Comparison of clinical outcomes after medial patellofemoral ligament reconstruction using superficial quadriceps tendon versus semitendinosus tendon autograft for patellar dislocation
 *Yuki Suzuki, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ....S291
- 2-9-36 Meniscotibial ligament attachment varies depending on the location: Detailed anatomy using clock face position method *Keiichi Yoshida, et al.*, Dept. of Orthop., Juntendo Univ....S291

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

- 2-10-S36-1 Potential of wide synovectomy of the elbow as a joint preserving surgery in patients with rheumatoid arthritis *Kengo Harigane, et al.*, Center for Rheumatic Diseases, Yokohama City Univ. Medical Center...S292
- 2-10-S36-2 Joint preserving surgeries for wrist with rheumatoid arthritis
 *Yoshihisa Nasu, et al.*, Dept. of Orthop. Surg., Okayama City Hosp....S292
- 2-10-S36-3 Current insights of the joint preserving surgery in RA hand
 *Ryo Oda, et al.*, Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine...S293
- 2-10-S36-4 Experience of high tibial osteotomy for rheumatoid arthritis patients treated with recent medication
 *Yasuhiro Takahara, et al.*, Dept. of Orthop. Surg., Nippon Kokan Fukuyama Hosp....S293
- 2-10-S36-5 Joint preservation surgery for rheumatoid forefoot deformity complicated by hallux valgus
 *Ayako Kubota, et al.*, Dept. of Orthop. Surg., Toho Univ. (Omori)...S294

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

- 2-10-1 Ultrasonographic evaluation of JAK inhibitor and TNF antagonist therapy in BIO-JAK naïve patients with rheumatoid arthritis
 *Yasuhide Kanayama, et al.*, Dept. of Orthop. Surg., Toyota Kosei Hosp....S295
- 2-10-2 Persistent use of biologics and JAK inhibitors and mental status in rheumatoid arthritis achieving treatment target: A KURAMA cohort study
 *Takayuki Fujii, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ....S295
- 2-10-3 Effectiveness of JAK inhibitors in elderly-onset rheumatoid arthritis
 *Kenya Terabe, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ....S296
- 2-10-4 Clinical results by anti-rheumatic drugs in rheumatoid arthritis over 90 years old
 *Kou Katayama, et al.*, Katayama Orthop. Rheumatology Clinic...S296
- 2-10-5 High dose subcutaneous MTX can improve rapid radiographic progression in first phase therapy. is it candidate for biologic therapy?
 *Kou Katayama, et al.*, Katayama Orthop. Rheumatology Clinic...S297
- 2-10-6 The actual condition of pneumocystis pneumonia in patients with rheumatoid arthritis and preventive effect of salazosulfapyridine: Aichi prefecture DPC data
 *Ryo Sato, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ....S297

11 : 00 ~ 12 : 00		Instructional lecture 31	Moderator T. Oda
2-10-EL31	How to diagnose and treat spondyloarthritis: Psoriatic arthritis and axial spondyloarthritis <i>Yuho Kadono</i> , 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 <i>Yuya Takakubo, et al.</i> , 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 <i>Kosuke Ebina, et al.</i> , 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 <i>Katsuaki Kanbe</i> , Nippori Orthop. and Rheumatic Clinic ...S300		
2-10-S37-2	Optimal timing for surgical intervention in elbow joint complications of rheumatoid arthritis <i>Yoshihisa Nasu, et al.</i> , 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 <i>Yuichiro Matsui, et al.</i> , Faculty of Dental Medicine, Hokkaido Univ. ...S301		
2-10-S37-4	Best timing for RA hip surgery <i>Shinya Hayashi, et al.</i> , 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 <i>Satomi Nagamine, et al.</i> , Dept. of Orthop. Surg., Saga Univ. ...S302		
2-10-S37-6	Assessment of the foot and ankle from early stage of RA treatment <i>Makoto Hirao</i> , 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 <i>Shogo Toyama, et al.</i> , Niigata Rheumatic Center ...S303		
2-10-8	Outcome of joint-preserving surgery for rheumatoid forefoot deformity complicated by severe hallux valgus <i>Ayako Kubota, et al.</i> , 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 <i>Yoshifumi Ohashi, et al.</i> , 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) <i>Mochihito Suzuki, et al.</i> , 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 <i>Takaya Sugiura, et al.</i> , 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 <i>Yusuke Sugimura, et al.</i> , Dept. of Orthop. Surg., Akita Rosai Hosp. ...S305		

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

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(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
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- 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
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- 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

- 2-A-S40-3 Regional collaboration for osteoporosis from a pharmacist's perspective
..... *Ryo Suzuki, et al.*, Seirei Sakura Citizen Hosp. ...S314
- 2-A-S40-4 Developing OLS for primary fracture prevention: A model of regional network and collaboration
following fragility fractures ... *Tetsuhiro Ishikawa, et al.*, Orthop. Surg., Sanmu Medical Center ...S314
- 2-A-S40-5 Current status of secondary fracture prevention continuous management in Chiba prefecture
..... *Kan Takase, et al.*, Kitachiba Orthop. Clinic ...S315
- 2-A-S40-6 A survey of continued secondary fracture preventive management
..... *Takato Kanabuchi*, Kanabuchi Orthop. Clinic ...S315

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?		

- 2-A-S41-1 The issues in secondary fracture prevention after hip fractures identified through
multicenter studies
..... *Shun Shimodan, et al.*, Dept. of Orthop. Surg., Kushiro City General Hosp. ...S316
- 2-A-S41-2 Mechanisms of bone fragility approached from basic research
..... *Manabu Tsukamoto, et al.*, Dept. of Orthop. Surg.,
School of Medicine, Univ. of Occupational and Environmental Health ...S316
- 2-A-S41-3 Effect of osteoporosis drugs evaluated by bone microarchitecture analysis
..... *Ko Chiba*, Dept. of Orthop. Surg., Nagasaki Univ. Graduate School of Biomedical Sciences ...S317
- 2-A-S41-4 Differential use of osteoporosis treatments based on real-world clinical data
..... *Tomonori Kobayakawa*, Kobayakawa Orthop. and Rheumatologic Clinic ...S317
- 2-A-S41-5 Comprehensive management of osteoporosis treatment considering sequential therapy
..... *Kosuke Ebina, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ. ...S318

16 : 55 ~ 17 : 55	Instructional lecture 34	Moderator K. Iba
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- 2-A-EL34 Total management for distal radius fractures: From surgery to osteoporosis treatment
..... *Akinori Sakai*, Dept. of Orthop. Surg.,
School of Medicine, Univ. of Occupational and Environmental Health ...S319

2nd Day May 23 Room JP-B	(JP tower, Conference Room A)
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8 : 00 ~ 9 : 20	Symposium 42	Moderators K. Ikari, N. Kanzaki
Surgical indications for ankle arthritis		

- 2-B-S42-1 Overview of surgical treatments for ankle osteoarthritis
..... *Takumi Matsumoto*, Orthop. Surg., Sensory and Motor System Medicine,
Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo ...S320
- 2-B-S42-2 Indication for supramalleolar osteotomy for varus-type osteoarthritis of the ankle:
Weight-bearing-line analysis *Naoki Haraguchi, et al.*, Dept. of Orthop. Surg.,
St. Marianna Univ. School of Medicine ...S320
- 2-B-S42-3 Surgical indications for ankle osteoarthritis based on joint congruity
..... *Shota Harada, et al.*, Dept. of Orthop. Surg.,
Japanese Red Cross Nagasaki Atomic Bomb(Genbaku) Hosp. ...S321
- 2-B-S42-4 Total ankle arthroplasty using FINE ankle system
..... *Makoto Hirao*, Dept. of Orthop. Surg., Osaka Minami Medical Center ...S321
- 2-B-S42-5 Indications for TM ankle
..... *Koichiro Yano*, Dept. of Orthop. Surg., Tokyo Women's Medical Univ. ...S322

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

- 2-B-S43-1 Alumina ceramic total talar replacement ahead of the world trend for talar implant
..... *Akira Taniguchi, et al.*, Dept. of Orthop. Surg., Nara Medical Univ. ...S323
- 2-B-S43-2 What happens in hallux valgus feet with a second MTP joint dislocation: Benefits to be expected from chevron procedure
..... *Hiroaki Shima, et al.*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ. ...S323
- 2-B-S43-3 Joint preserving surgery for forefoot deformity in patients with rheumatoid arthritis
..... *Hiroyuki Mitsui, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine ...S324
- 2-B-S43-4 Surgery points for ankle fractures in the elderly using Ilizarov external fixator
..... *Koji Nozaka, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine ...S324
- 2-B-S43-5 Medical technology development by precision medical engineering: Application to the foot and ankle surgery
..... *Shinji Imade, et al.*, Dept. of Orthop., Shimane Univ. ...S325

11 : 00 ~ 12 : 00	Instructional lecture 35	Moderator S. Matsubara
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- 2-B-EL35-1 Total ankle arthroplasty in patients with rheumatoid arthritis
..... *Katsunori Ikari*, Dept. of Orthop. Surg., Tokyo Women's Medical Univ. ...S326
- 2-B-EL35-2 Current trends and challenges in the surgical treatment of rheumatoid arthritis in foot and ankle joint surgery
..... *Tomohiro Onodera*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S326

12 : 30 ~ 13 : 40	Luncheon seminar 23	Moderator T. Ogata
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- 2-B-LS23 Clinical application and mechanism of action of cell therapy for osteoarthritis
..... *Taku Saito*, Orthop. Surg., Sensory and Motor System Medicine,
Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo ...S327

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

- 2-B-S44-1 Indications for lateral approach total ankle arthroplasty
..... *Koichiro Yano*, Dept. of Orthop. Surg., Tokyo Women's Medical Univ. ...S328
- 2-B-S44-2 Limitations of lateral approach total ankle arthroplasty
..... *Tetsuro Yasui*, Dept. of Orthop. Surg., Teikyo Univ. Hosp., Mizonokuchi ...S328
- 2-B-S44-3 *In vivo* kinematics of total ankle arthroplasty: Difference between implants
..... *Satoshi Yamaguchi, et al.*, Graduate School of Global and Transdisciplinary Studies,
Chiba Univ. ...S329
- 2-B-S44-4 Pathology and management of medial residual pain following lateral transfibular total ankle replacement
..... *Yuki Tochigi*, Dept. of Orthop. Surg., Dokkyo Medical Univ. Saitama Medical Center, ...S329
- 2-B-S44-5 Tibiofibular fixation in lateral trans-fibular total ankle replacement
..... *Atsushi Teramoto, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S330

15 : 20 ~ 16 : 20	Afternoon seminar 1	Moderator S. Mori
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- 2-B-AS1 Hip fracture and its risk factors
..... *Takeshi Miyamoto*, Dept. of Orthop. Surg., Faculty of Life Sciences, Kumamoto Univ. ...S331

16 : 55 ~ 17 : 55	Free papers 40	Foot & ankle	Moderators	T. Nishikawa, K. Watanabe
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- 2-B-1 A comparative study of postoperative clinical outcomes in middle-aged versus elderly patients after lateral ankle ligament repair for ankle osteoarthritis
.....*Taihei Miura, et al.*, Dept. of Orthop. Surg., Jujo Hosp.··S332
- 2-B-2 Correlation between distal tibial deformity and periarticular bone density distribution in ankle osteoarthritis
.....*Yoshiki Tayama, et al.*, Dept. of Orthop. Surg., Dokkyo Medical Univ. Saitama Medical Center··S332
- 2-B-3 Relationship between bone morphology of the ankle and osteochondral lesions of the talus
.....*Masashi Nakamura, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ.··S333
- 2-B-4 Reference value of weight-bearing line on the ankle: Analysis using hip-to-calcaneal radiographs of 1000 community-dwelling adults
.....*Satoshi Yamaguchi, et al.*, Graduate School of Global and Transdisciplinary Studies, Chiba Univ.··S333
- 2-B-5 Factors affecting postural stability in patients with hallux valgus
.....*Ken Tanaka, et al.*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ.··S334
- 2-B-6 Assessment of ankle osteoarthritis using bone SPECT/CT quantification
.....*Kanu Shimokawa, et al.*, Dept. of Orthop. Surg.,
Graduate School of Medical Sciences, Kanazawa Univ.··S334

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			

- 2-C-S45-1 Advances in second-line chemotherapy for advanced malignant soft tissue tumors
.....*Makoto Endo, et al.*, Dept. of Orthop. Surg.,
Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.··S335
- 2-C-S45-2 Advances in genomic medicine for advanced soft tissue sarcoma
.....*Hiroshi Kobayashi*, Dept. of Orthop. Surg., The Univ. of Tokyo Hosp., The Univ. of Tokyo··S335
- 2-C-S45-3 Improvement in radiation therapy for unresectable soft tissue sarcomas: Utilization of particle radiation therapy and stereotactic radiation therapy
.....*Akihiro Nomoto, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp.··S336
- 2-C-S45-4 Radiofrequency ablation therapy for oligometastasis in sarcoma at our hospital
.....*Kenji Sato, et al.*, Dept. of Orthop. Surg., Teikyo Univ.··S336
- 2-C-S45-5 CT guided cryoablation for locally recurrent or advanced soft tissue tumor
.....*Michiro Susa, et al.*, Dept. of Orthop. Surg., National Defense Medical College··S337
- 2-C-S45-6 The role of preoperative intensity modulated radiation therapy for infiltrative subtypes of soft-tissue sarcomas
.....*Satoshi Tsukushi, et al.*, Dept. of Orthop. Surg., Aichi Cancer Center Hosp.··S337

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

- 2-C-JS3-1 Treatment of long bone metastasis: Collaboration and recommendations from oncologist to trauma surgeons*Tetsuya Hamada, et al.*, Dept. of Orthop. Surg., Kurume Univ.··S338
- 2-C-JS3-2 Operative treatment for pathologic extremities fractures due to bone metastases: Collaboration between orthopaedic oncology surgeons and orthopaedic trauma surgeons
.....*Tomoyuki Noda, et al.*, Dept. of Orthop. Trauma Surg. and Sport Med.,
Kawasaki Medical School··S338

- 2-C-JS3-3 Collaboration between a cancer center and spinal surgeons in a regional city
 · *Akira Itoi, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Shizuoka Hosp.···S339
- 2-C-JS3-4 Practice and future prospects of collaboration with spine surgeons for metastatic spine tumors
 in a cancer center
 · *Akira Iwata, et al.*, Dept. of Musculoskeletal Oncol., Hokkaido Cancer Center···S339
- 2-C-JS3-5 Cooperation between general practitioners and oncology institutions
 · *Hirohisa Katagiri, et al.*, Div. of Orthop. Oncology, Shizuoka Cancer Center···S340

11 : 00 ~ 12 : 00	Instructional lecture 36	Moderator Y. Nishida
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- 2-C-EL36 Innovations in diagnosis and treatment of soft tissue tumors
 · *Akihiko Matsumine*, Dept. of Orthop. and Rehabilitation Medicine,
 Faculty of Medical Sciences, Univ. of Fukui···S341

12 : 30 ~ 13 : 40	Luncheon seminar 24	Moderator Y. Kawaguchi
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- 2-C-LS24 Surgical treatment for refractory spinal disorders and clinical/epidemiological research:
 Aiming to overcome musculoskeletal pain
 · *Shiro Imagama, et al.*, Dept. of Orthop./Rheumatology,
 Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,
 Graduate School of Medicine, Nagoya Univ.···S341

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		

- 2-C-S46-1 Research strategies for using the US SEER database for bone and soft tissue tumor
 · *Masatake Matsuoka*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S342
- 2-C-S46-2 National cancer database study: Real-world situations for bone and soft tissue tumors in the US
 · *Tomohiro Fujiwara, et al.*, Dept. of Orthop. Surg., Okayama Univ. Hosp.···S342
- 2-C-S46-3 Sarcoma in Japan: Perspective from the bone and soft tissue tumor registry
 · *Koichi Ogura, et al.*, Dept. of Musculoskeletal Oncology and Rehab.,
 National Cancer Center Hosp.···S343
- 2-C-S46-4 Surgical site infection in surgery for bone and soft tissue tumors
 · *Takeshi Morii*, Dept. of Orthop. Surg., Kyorin Univ.···S343
- 2-C-S46-5 Current situation and future perspective in patients with malignant bone and soft tissue tumors
 who received unplanned excision in Japan
 · *Tomoki Nakamura, et al.*, Dept. of Musculoskeletal Surg.,
 Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine···S344

15 : 20 ~ 16 : 20	Afternoon seminar 2	Moderator H. Akiyama
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- 2-C-AS2-1 The outlook of APS therapy for osteoarthritis of the hip
 · *Kazumasa Miyatake*, Institute of Science Tokyo Hosp.···S345
- 2-C-AS2-2 Clinical outcomes of autologous protein solution therapy for knee osteoarthritis
 · *Nao Shibamura*, Dept. of Orthop. Surg., Kobe Kaisei Hosp.···S345

16 : 55 ~ 17 : 55	Instructional lecture 37	Moderator H. Murakami
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- 2-C-EL37 Evolving spinal metastasis treatment: New perspectives and possibilities
 · *Yoshihiro Matsumoto*, Dept. of Orthop. Surg., Fukushima Medical Univ.···S346

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

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

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

- 3-3-ICL1-2 Meniscus tears in elite athletes: Treatment considerations, clinical outcomes, and return to play *Scott A. Rodeo*, American Academy of Orthopaedic Surgeons (AAOS) ...S371

15 : 55 ~ 16 : 55 JOA/AAOS combined program: Instructional lecture 2 (English)

Moderators H. Sugaya, Y. Ishibashi

- 3-3-ICL2-1 Does MR arthrography improve evaluation of patients with posterior shoulder instability? An analysis from the MOON Shoulder Instability Group *C. Benjamin Ma*, American Academy of Orthopaedic Surgeons (AAOS) ...S372
- 3-3-ICL2-2 Elbow ligament reconstruction of baseball players *Matthew V. Smith*, American Academy of Orthopaedic Surgeons (AAOS) ...S372

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

- 3-3-CS-1 Screening for early detection of capitellar OCD *Tetsuya Matsuura, et al.*, Dept. of Rehabil. Med., Tokushima Univ. Hosp. ...S373
- 3-3-CS-2 Current surgical treatments for OCD *Daisuke Momma, et al.*, Center for Sports Medicine, Hokkaido Univ. Hosp. ...S373
- 3-3-CS-3 Management for elbow injuries of professional players *Matthew V. Smith*, American Academy of Orthopaedic Surgeons (AAOS) ...S374
- 3-3-CS-4 Orthobiologics for anterior cruciate ligament reconstruction *Scott A. Rodeo*, American Academy of Orthopaedic Surgeons (AAOS) ...S374
- 3-3-CS-5 New frontier of ACL reconstruction *C. Benjamin Ma*, American Academy of Orthopaedic Surgeons (AAOS) ...S375
- 3-3-CS-6 Biomechanical and clinical evaluations of anatomic double-bundle anterior cruciate ligament reconstruction *Eiji Kondo*, Centre for Sports Med., Hokkaido Univ. ...S375

3rd Day May 24 Room 4

(TIF, Hall B7(2))

7 : 50 ~ 8 : 50 JOA Directors' proposed lecture 3

Moderator D. Hamada

- 3-4-JEL3-1 Clinical relevance and potential of CT-based robotic knee surgery: Is the opinion of an early adapter justified? *Masaki Mizushima, et al.*, Dept. of Orthop. Surg., Yonemori Hosp. ...S376
- 3-4-JEL3-2 Is knee robot-assisted surgery all-purpose? *Ayano Kuwasawa, et al.*, Saitama Cooperative Hosp. ...S376

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

- 3-4-JS5-1 Minimally invasive approach and future perspectives of biomaterial based articular cartilage regeneration therapy *Tomohiro Onodera, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S377
- 3-4-JS5-2 PRP therapy for knee joint disorders *Yoshitomo Saita, et al.*, Regenerative Medicine for Locomotive Organ, Juntendo Univ. ...S377
- 3-4-JS5-3 Randomized controlled study of allogenic stem cell-based cartilage repair *Norimasa Nakamura*, Osaka Health Science Univ. ...S378
- 3-4-JS5-4 Regenerative medicine for osteoarthritis of the knee using cell sheets *Masato Sato, et al.*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ. ...S378

- 3-4-JS5-5 Current status and challenges in meniscus treatment: Preservation using autologous synovial mesenchymal stem cells
..... *Ichiro Sekiya, et al.*, Center for Stem Cell and Regenerative Medicine, Institute of Science Tokyo...S379
- 3-4-JS5-6 Regeneration of articular cartilage by means of allogeneic iPSC-derived cartilage transplantation
..... *Noriyuki Tsumaki*, Dept. of Tissue Biochemistry, The Univ. of Osaka...S379

12 : 00 ~ 13 : 10 Luncheon seminar 28

Moderator Y. Yoshii

- 3-4-LS28 Beyond the bones: The science and art of next-generation orthopaedics
..... *Hiroshi Minagawa*, Joto Orthop. Clinic...S380

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

- 3-4-JS6-1 Development of wearable system based on inertial measurement unit and AI for knee osteoarthritis *Takeo Nagura, et al.*, Dept. of Clinical Biomechanics, Keio Univ...S381
- 3-4-JS6-2 AI-assisted diagnostic system for osteoporosis using the X-ray images
..... *Toru Moro, et al.*, Div. of Science for Joint Reconstruction, Graduate School of Medicine, The Univ. of Tokyo...S381
- 3-4-JS6-3 Robotic-assisted surgery and post-operative activity assessment using the patient app for DX knee arthroplasty *Takafumi Hiranaka*, Dept. of Orthop. Surg. and Joint Surg. Centre...S382
- 3-4-JS6-4 Enhancing outcomes in total hip arthroplasty through the utilization of computer: Assisted surgery and smart devices
..... *Takeaki Yamamoto, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S382
- 3-4-JS6-5 The role of PHR in healthcare digital transformation for regional healthcare
..... *Yoshihiro Takahashi, et al.*, Dept. of Diabetes, Gifu Univ. Hosp...S383

15 : 00 ~ 16 : 20 Symposium 50

Moderators T. Kumai, C. Watanabe

You can achieve so much! Further possibilities of ultrasound for the musculoskeletal system

- 3-4-S50-1 From the perspective of trauma care: Application of ultrasound in bone healing evaluation and proximal femoral fractures *Yohei Sakai, et al.*, Nagaoka Chuo General Hosp...S384
- 3-4-S50-2 Pediatric orthopedist's point of view: Feasibility of ultrasound screening for pediatric hip joints
..... *Kotaro Hoshino*, Dept. of Orthop. Surg., Yamane Hosp...S384
- 3-4-S50-3 Adaptation and application of ultrasound to hip arthroscopic surgery
..... *Shoichi Nishikino, et al.*, Dept. of Orthop. Surg., Nishikino Clinic...S385
- 3-4-S50-4 The usefulness of motor echocardiography in routine clinical practice and its social impact
..... *Yohei Tanikake*, Tanikake Orthop. Clinic...S385
- 3-4-S50-5 Diagnosis and treatments of shoulder injuries in overhead athletes with ultrasound
..... *Masahito Yoshida, et al.*, Dept. of Musculoskeletal Sports Medicine, Research and Innovation, Nagoya City Univ., Graduate School of Medical Sciences...S386

16 : 35 ~ 17 : 35 Instructional lecture 44

Moderator T. Moro

- 3-4-EL44 Application of AI technology in MSK diseases
..... *Tamotsu Kamishima*, Faculty of Health Sciences, Hokkaido Univ...S387

17 : 50 ~ 18 : 50 Invited lecture 12 (English)

Moderator Y. Ohkoshi

- 3-4-IL12-1 Knowledge of spine biomechanics required for orthopaedic surgeons
..... *Nozomu Inoue*, Dept. of Orthop. Surg., Rush Univ. Medical Center, Chicago, IL, USA...S388
- 3-4-IL12-2 Biomechanics of the anterior cruciate ligament enthesis
..... *Hiromichi Fujie*, Medicine-Engineering Collaborative Research Center, TMU...S388

8 : 00 ~ 9 : 00	Lecture for next generation 1	Moderator H. Haro
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- 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
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- 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
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- 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
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- 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 Saito*, 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

- 3-5-S52-6 What I learned through my research abroad at the University of Florida
 *Kenji Kitamura, et al.*, Dept. of Orthop. Surg., Hamanomachi Hosp. ...S397

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

- 3-5-1 New arthroscopic healing scoring system of medial meniscus posterior root tear
 *Yasumasa Tokumoto, et al.*, Dept. of Orthop. Surg., Institute of Science Tokyo Hosp. ...S398
- 3-5-2 Clinical outcomes and progression of osteoarthritis in natural history of medial meniscus posterior root tear with minimum 2-year follow-up
 *Satoshi Nonaka, et al.*, Dept. of Orthop. Surg., Gunma Central Hosp. ...S398
- 3-5-3 The postoperative course in patients with poor mid-term outcomes after medial meniscus posterior root repair *Yusuke Kamatsuki, et al.*, Dept. of Orthop. Surg., Okayama Saiseikai General Hosp. ...S399
- 3-5-4 Circumferential fiber augmentation combined with transtibial pullout repair is more effective than two stitches in reducing meniscal extrusion
 *Yuya Kodama, et al.*, Dept. of Orthop. Surg., Okayama Rosai Hosp. ...S399
- 3-5-5 Anteriorly oriented tibial tunnel creation in transtibial pullout repair for medial meniscus posterior root tear worsened postoperative clinical scores *Koki Kawada, et al.*, Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ. ...S400
- 3-5-6 The medial femoral condyle angle is associated with medial meniscus posterior root tear
 *Kensuke Hotta, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine ...S400

17 : 30 ~ 18 : 30	Free papers 42	Knee: Osteotomy 3	Moderators	T. Akiyama, K. Tensho
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- 3-5-7 Large gap volume is a strong risk factor for delayed gap healing after open-wedge high tibial osteotomy
 *Sayako Sakai, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S401
- 3-5-8 Conformity of the patellofemoral joint after medial opening wedge high tibial osteotomy: A fresh frozen cadaveric study ... *Akihito Kawai, et al.*, Dept. of Orthop. Surg., Nara Medical Univ. ...S401
- 3-5-9 Changes in patellar height sequentially and related factors after closed wedge high tibial osteotomy *Tetsuro Ishimatsu, et al.*, Dept. of Orthop. Surg., Fukuoka Univ. ...S402
- 3-5-10 Effect of preoperative MRI-based qualitative evaluation on clinical outcomes 2 years after inverted V-shaped high tibial osteotomy *Yeonseok Jo, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S402
- 3-5-11 Long-term survival and predictors of failure in medial opening wedge distal tibial tuberosity osteotomy with hemicallotasis for medial knee osteoarthritis
 *Eiichi Nakamura, et al.*, Dept. of Orthop. Surg., Reha-Center Kumamoto Kaiseikai Hosp. ...S403
- 3-5-12 Analysis of factors affecting conversion to TKA after OWHTO
 *Yuji Arai, et al.*, Dept. of Sports and Para-Sports Medicine, Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine ...S403

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			

- 3-6-1 Full endoscopic discectomy for primary and revision surgery of lumbar disc herniation with surgery performed by the same spine surgeon
 *Minoru Yamada*, Dept. of Orthop. Surg., Asakusa Hosp. ...S404

- 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
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- 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
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- 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 Treatment strategies for adult spinal deformity	Moderators H. Ozawa, H. Murakami
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- 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

- 3-6-S53-3 Circumferential minimally invasive surgery (cMIS) with LIF and all PPS for adult spinal deformity: Changes in the last 10 years
.....*Tomohisa Harada, et al.*, Rakuwakai Marutamachi Hosp.··S411
- 3-6-S53-4 Effect of preoperative prehabilitation to prevent medical complications after adult spinal deformity*Shin Oe, et al.*, Dept. of Geriatric Musculoskeletal Health, Hamamatsu Univ. School of Medicine··S411
- 3-6-S53-5 Cost-effectiveness after extensive corrective fixation for adult spinal deformity
.....*Hideyuki Arima, et al.*, Nx-CEC, Hamamatsu Univ. School of Med.··S412

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

- 3-6-S54-1 Evaluation of neurological function and pain in cervical spine disorders in the elderly: Assessment using electrophysiological methods or AI technology
.....*Kazuyoshi Nakanishi*, Dept. of Orthop. Surg., Nihon Univ.··S413
- 3-6-S54-2 Current status of cervical endoscopic surgery*Yasushi Oshima, et al.*, Dept. of Orthop. Surg., The Univ. of Tokyo Hosp., The Univ. of Tokyo··S413
- 3-6-S54-3 Posterior reconstruction of the cervical spine in super aging society: A significance of patient matched guide*Itaru Oda, et al.*, Dept. of Orthop. Surg., Hokkaido Orthop. Memorial Hosp.··S414
- 3-6-S54-4 Anterior cervical surgery in aging society
.....*Kenichiro Sakai, et al.*, Dept. of Orthop. Surg., Saiseikai Kawaguchi General Hosp.··S414
- 3-6-S54-5 Treatment strategies for dropped head syndrome (DHS)
.....*Ken Ishii, et al.*, New Spine Clinic Tokyo··S415

16 : 30 ~ 17 : 30 Free papers 44 Adult spinal deformity 1	Moderators K. Kanzaki, K. Miyamoto
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- 3-6-7 Risk analysis of postoperative complications in adult spine deformity surgery using lateral lumbar interbody fusion (LLIF): NSGad study
.....*Sadayuki Ito, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.··S416
- 3-6-8 Spine user is a risk factor for PJF in adult spinal deformity correction surgery
.....*Masayuki Ishihara, et al.*, Dept. of Orthop. Surg., Kansai Medical Univ.··S416
- 3-6-9 The impact of different techniques for L5/S1 on clinical outcomes in CMIS for spinal deformity: OLIF51 vs LLIF*Masayuki Ishihara, et al.*, Dept. of Orthop. Surg., Kansai Medical Univ.··S417
- 3-6-10 Analysis of the abdominal aorta after corrective fixation for kyphosis in the elderly
.....*Yuko Takeda, et al.*, Dept. of Orthop. Surg., Sonoda Daisan Hosp.··S417
- 3-6-11 Correlation between nutritional status and clinical outcomes in adult spinal deformity surgery using the short-form mini-nutritional assessment (MNA-SF)
.....*Kotaro Oda, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Science, Univ. of Yamanashi··S418
- 3-6-12 Genome-wide association study of lumbar degenerative kyphosis: A multicenter study by 6 universities in Tohoku district
.....*Ko Hashimoto, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine··S418

17 : 30 ~ 18 : 30 Free papers 45 Adult spinal deformity 2	Moderators K. Watanabe, Y. Yamato
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- 3-6-13 The usefulness of global alignment and proportion (GAP) score: Comparison of elderly and non-elderly*Keisuke Ogura, et al.*, Dept. of Orthop. Surg., Anjo Kosei Hosp.··S419
- 3-6-14 Thoracic kyphosis with less degeneration improves alignment naturally by correcting the lumbar spine*Masayuki Ishihara, et al.*, Dept. of Orthop. Surg., Kansai Medical Univ.··S419

- 3-6-15 Timing of initiation of teriparatide in adult spinal deformity surgery
 *Yujiro Kagami, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.··S420
- 3-6-16 Correlation between nutritional status assessed by the short-form mini-nutritional assessment
 (MNA-SF) and spinal alignment in adult spinal deformity surgery
 *Kotaro Oda, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medical Science, Univ. of Yamanashi··S420
- 3-6-17 Surgical techniques for preventing proximal junctional kyphosis after surgery for adult
 spinal deformity *Satoshi Suzuki, et al.*, Dept. of Orthop. Surg., Keio Univ.··S421
- 3-6-18 Deterioration of sagittal balance during walking in adult spinal deformity patients: A study using
 3D gait analysis synchronized with electromyography
 *Kousei Miura, et al.*, Dept. of Orthop. Surg., Univ. of Tsukuba··S421

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

- 3-7-IL13-1 Reverse total shoulder arthroplasty: Now and future
 *Jean-David Werthel*, Dept. of Orthop. Surg.,
 Ambroise Paré Hosp., Boulogne-Billancourt, France··S422
- 3-7-IL13-2 The trends and future of RSA in Japan 10 years after its introduction
 *Noboru Taniguchi*, Dept. of Orthop. Surg.,
 Graduate School of Medical and Dental Sciences, Kagoshima Univ.··S422

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

- 3-7-IL14-1 Treatment for cartilage injuries of the ankle: Strategies for osteochondral lesion of talus and
 recent advances in cartilage regeneration
 *Jin Woo Lee*, Dept. of Orthop. Surg., Yonsei Univ., Seoul, Republic of Korea··S423
- 3-7-IL14-2 Surgical strategies for osteochondral lesions of the talus: challenges, evidence, and
 future directions *Youichi Yasui, et al.*, Dept. of Orthop. Surg., Teikyo Univ.··S423
- CanceledS424
- CanceledS424

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

- 3-7-LS31 Treatment strategy for osteoporotic vertebral fractures and spinal kyphosis using bone anabolic
 agents and therapeutic exercise
 *Naohisa Miyakoshi*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine··S425

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

- 3-7-IL15-1 Leadership, being intentional & minimizing bias: A global perspective on women
 in orthopaedics *Jennifer Green*, Canberra Hand Centre, Canberra, Australia··S426
- 3-7-IL15-2 Shaping the future of female orthopaedic surgeons in Japan: Leadership and career support
 *Yuko Nakashima*, Dept. of Orthop. Surg., Chugoku Rosai Hosp.··S426

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

- 3-7-IL16-1 Bedside to bench to dance floor
 *Noriko Satake*, Dept. of Pediatrics, Univ. of California, Davis, Sacramento, CA, USA··S427

- 3-7-IL16-2 Diversity in orthopaedics: A female minority perspective
*Keiko Amano*, Univ. of California, San Francisco- Fresno,
 Dept. of Orthop. Surg., Fresno, CA, USA...S427

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

- 3-7-S55-1 Medical digital transformation and cyber security
*Hiroshi Kondoh*, JTITA, Kyoritsu Memorial Hosp...S428
- 3-7-S55-2 Promotion and evaluation of telemedicine in acute care
*Takashi Hasegawa*, Japan Telemedicine Society...S428
- 3-7-S55-3 Diagnostic accuracy of medical examination in the telecare settings with or without using
 telemonitoring systems
*Satoshi Homma*, Medical Education Center, Faculty of Medicine, Saitama Medical Univ...S429
- 3-7-S55-4 Use of AI technology in remote medical diagnosis
*Naoki Kobayashi*, Faculty of Health & Med. Care, Saitama Medical Univ...S429
- 3-7-S55-5 International remote medical education
*Tomohiko Moriyama, et al.*, iMed, Kyushu Univ. Hosp...S430

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

- 3-7-1 Characteristics of high fall risk in male osteoporotic patients
*Takashi Nagai, et al.*, Dept. of Rehabilitation Medicine, Showa Univ...S431
- 3-7-2 Fall fracture risk and balance between oxidative stress and antioxidant property
*Taisuke Seki, et al.*, Dept. of Orthop. Surg., Aichi Medical Univ. Medical Center...S431
- 3-7-3 A study of subchondral fragility fractures of femoral head leading to total hip arthroplasty:
 What are characteristics?
*Yosuke Iwamoto, et al.*, Dept. of Orthop. Surg., Omagari Kosei Medical Center...S432
- 3-7-4 Factors for delayed bone healing in atypical femur fractures in Yamagata prefectural area:
 YamaCAFe extended study*Rikiya Iwamaru, et al.*, Dept. of Orthop. Surg., Nihonkai Hosp...S432
- 3-7-5 Exhaustive evaluation of serum alkaline phosphatase values for screening of adult and pediatric
 hypophosphatasia
*Kenichi Mishima, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S433
- 3-7-6 A case of MCTO in which a novel variant of the MAFB gene was identified and denosumab
 administration was effective
*Satoshi Hisanaga, et al.*, Dept. of Orthop. Surg., Kumamoto Univ. Hosp...S433

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)		

- 3-8-S56-1 Pathophysiology of osteoarthritis from the perspective of synovium
*Taku Saito*, Orthop. Surg., Sensory and Motor System Medicine,
 Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo...S434
- 3-8-S56-2 Pathophysiology of early-stage knee osteoarthritis-what imaging reveals
*Haruka Kaneko, et al.*, Dept. of Orthop., Juntendo Univ...S434
- 3-8-S56-3 Stress distribution in the knee joint from the perspective of lower limb alignment and
 the meniscus*Koji Iwasaki, et al.*, Dept. of Functional Reconstruction for the Knee Joint,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S435

- 3-8-S56-4 Osteoarthritis of the ankle: Up to date
 *Tomoyuki Nakasa, et al.*, Dept. of Artificial Joints and Biomaterials,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S435
- 3-8-S56-5 Three-dimensional *in vivo* kinematics using CT in patients with varus ankle osteoarthritis
 *Hiroaki Kurokawa, et al.*, Dept. of Orthop. Surg., Nara Medical Univ. ...S436

9 : 35 ~ 10 : 35	Invited lecture 17 (English)	Moderator S. Otsuki
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- 3-8-IL17-1 HTO-planning, surgical technique and complication management
 *Steffen S. Schröter*, Dept. of Orthop. and Rec. Surg.,
 Diakonie Klinikum Jung-Stilling Krankenhaus, Siegen, Germany ...S437
- 3-8-IL17-2 Evolution of osteotomy around the knee and future requirements for its development
 *Ryohei Takeuchi*, Dept. of Joint Surg. Yokohama Sekishinkai Hosp. ...S437

12 : 00 ~ 13 : 10	Luncheon seminar 32	Moderator M. Ikeuchi
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- 3-8-LS32 What is required for modern osteotomies around the knee?: Early return to work and long-term clinical result *Hiroyasu Ogawa*, Dept. of Orthop. Surg., Div. of Disease Control,
 Research field of Medical Sciences, Graduate School of Medicine, Gifu Univ. ...S438

14 : 40 ~ 15 : 40	Invited lecture 18 (English)	Moderator N. Kawakami
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- 3-8-IL18-1 A novel classification for kyphosis and its influence on surgical management for severe deformities *S. Rajasekaran*, Dept. of Orthop., Ganga Hosp., Coimbatore, India ...S439
- 3-8-IL18-2 Early onset scoliosis surgery in Japan: State of the art and future perspective
 *Koki Uno*, Dept. of Orthop. Surg., National Hosp. Organization Kobe Medical Center ...S439

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

- 3-8-S57-1 Optimal alignment in high tibial osteotomy based on biomechanical analysis
 ... *Shinichi Kuriyama, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S440
- 3-8-S57-2 The optimal alignment for AKO in Europe
 *Hiroshi Nakayama, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ. ...S440
- 3-8-S57-3 Appropriate alignment in around-knee osteotomies for end-stage medial knee osteoarthritis
 *Ryuichi Nakamura, et al.*, Dept. of Orthop. Surg., Harue Hosp. ...S441
- 3-8-S57-4 Optimal alignment in AKO for patients who participate in sports activities
 ... *Takehiko Matsushita, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S441
- 3-8-S57-5 Alignment of AKO for preservation of meniscus function
 *Masaki Amemiya, et al.*, Dept. of Orthop. and Spinal Surg.,
 Graduate School of Medical and Dental Sciences, Institute of Science Tokyo ...S442

17 : 30 ~ 18 : 30	Instructional lecture 45	Moderator N. Kamei
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- 3-8-EL45 Biological therapies in osteoarthritis *Norimasa Nakamura*, Osaka Health Science Univ. ...S443

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		

- 3-9-S58-1 Results and findings of angulated innominate osteotomy: Pelvic osteotomy without bone grafting *Daisuke Takahashi, et al.*, Dept. of Orthop. Surg., Hokkaido Univ. Hosp. ...S444

3-9-S58-2	Current status and future of rotational acetabular osteotomy <i>Takeshi Shoji, et al.</i> , Dept. of Artificial Joints and Biomaterials, Graduate School of Biomedical and Health Sciences, Hiroshima Univ.··S444
3-9-S58-3	Navigation-assisted eccentric rotational acetabular osteotomy: Changes over the past 5 years and future challenges <i>Yusuke Osawa, et al.</i> , Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.··S445
3-9-S58-4	Curved periacetabular osteotomy: Inheritance and future prospects <i>Koichi Kinoshita, et al.</i> , Dept. of Orthop. Surg., Fukuoka Univ.··S445
3-9-S58-5	Transtrochanteric rotational osteotomy of the femoral head: Succession and development <i>Goro Motomura, et al.</i> , Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.··S446

9 : 35 ~ 10 : 35	Invited lecture 19 (English)	Moderator N. Kaku
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3-9-IL19-1	Capsular management for hip arthroscopy: The rise of conservative techniques <i>Alan Zhang</i> , Univ. of California, San Francisco, Dept. of Orthop. Surg., San Francisco, CA, USA··S447
3-9-IL19-2	Evolving hip arthroscopic management for hip capsular management and labral preservation <i>Soshi Uchida</i> , Dept. of Orthop. Surg., Wakamatsu Hosp. of the Univ. of Occupational and Environmental Health··S447

12 : 00 ~ 13 : 10	Luncheon seminar 33	Moderator S. Momohara
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3-9-LS33	Recent trends in rheumatoid arthritis treatment that general orthopaedic surgeons should be aware of <i>Kosuke Ebina, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S448
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14 : 40 ~ 15 : 40	Afternoon seminar 3	Moderator S. Matsuda
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3-9-AS3-1	Prevention of SSI in orthopaedic surgery <i>Hyonmin Choe, et al.</i> , Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine··S449
3-9-AS3-2	Small habits to improve clinical outcomes in robotic-arm assisted total knee arthroplasty <i>Masaki Mizushima</i> , Dept. of Orthop. Surg., Yonemori Hosp.··S449

15 : 55 ~ 17 : 15	Symposium 59	Moderators A. Okawa, Y. Inaba
Treatment strategies for peri-implant infections after initial treatment failure		

3-9-S59-1	Treatment strategy for recurrent SSI after spinal instrumentation SSIs <i>Koji Yamada, et al.</i> , Nakanoshima Orthop.··S450
3-9-S59-2	Lessons from the experience that failed the initial treatment of nontuberculous mycobacterial periprosthetic knee joint infection <i>Hidetoshi Hamaguchi, et al.</i> , Dept. of Orthop. Surg., Wajo-kai Sapporo Hosp.··S450
3-9-S59-3	Treatment strategies for failed initial treatment of periprosthetic joint infections (PJI) in hip <i>Hyonmin Choe</i> , Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine··S451
3-9-S59-4	The treatment strategy for failure of initial treatment of fracture related infection <i>Akihiro Maruo</i> , Dept. of Orthop. Surg., Harima Himeji General Medical Center··S451
3-9-S59-5	A surgical site infection occurred during initial treatment for a sports injury <i>Daichi Morikawa, et al.</i> , Dept. of Orthop., Juntendo Univ.··S452
3-9-S59-6	Treatment strategies for surgical site infection in bone and soft tissue tumor surgeries following initial treatment failure <i>Takeshi Morii, et al.</i> , Dept. of Orthop. Surg., Kyorin Univ.··S452

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

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(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

- 3-10-6 Efficacy of posterior fixation for thoracolumbar burst fractures: Results of aggressive intraoperative redaction *Kazunori Oae, et al.*, Dept. of Orthop. Surg.,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S460

12 : 00 ~ 13 : 10	Luncheon seminar 34	Moderator G. Inoue
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- 3-10-LS34-1 Therapeutic mechanisms of intravenous mesenchymal stem cells for spinal cord injury
..... *Masanori Sasaki, et al.*, Dept. of Neural Regenerative Med., Sapporo Med Univ. ...S461
- 3-10-LS34-2 Bone marrow mesenchymal stem cell therapy for traumatic spinal cord injury
..... *Ryunosuke Fukushi, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S461

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

- 3-10-7 Surgical strategy for metastatic spinal tumors based on spinal instability neoplastic score and patient-reported outcomes: JASA multicenter prospective study
..... *Hideaki Nakajima, et al.*, Dept. of Orthop. and Rehabilitation Medicine,
Faculty of Medical Sciences, Univ. of Fukui ...S462
- 3-10-8 Can preoperative MRI differentiate intradural extension of spinal dumbbell tumors?: Verification using the 'dural deviation ratio'
..... *Ko Hashimoto, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine ...S462
- 3-10-9 Clinical outcome of microscopic posterior transdural resection of retro-odontoid pseudotumor
..... *Yuji Tsuchikawa, et al.*, Dept. of Orthop. Surg.,
Hiroshima City North Medical Center Asa Citizens Hosp. ...S463
- 3-10-10 Intraoperative neurophysiological monitoring for thoracic metastatic tumors: JSSR monitoring WG multicenter study *Naoki Segi, et al.*, Dept. of Orthop./Rheumatology,
Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,
Graduate School of Medicine, Nagoya Univ. ...S463
- 3-10-11 Relationship between MRI findings and motor evoked potentials in cervical myelopathy: Using MRI contrast ratio and CMCT *Hiroki Fukui, et al.*, Dept. of Orthop. Surg.,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S464
- 3-10-12 Evaluating neural activity at the intervertebral foramen after lateral femoral cutaneous nerve and saphenous nerve stimulation using magnetospinography
..... *Hisato Higashikawa, et al.*, Dept. of Orthop. and Spinal Surg.,
Graduate School of Medical and Dental Sciences, Institute of Science Tokyo ...S464

14 : 40 ~ 15 : 40	Afternoon seminar 4	Moderator Y. Minoda
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- 3-10-AS4-1 Robot-assisted UKA using ROSA system
..... *Kazu Matsumoto*, Gifu Seiryu Hosp. ...S465
- 3-10-AS4-2 Artificial joints through DX (digital transformation) from multiple perspectives including clinical/managerial aspects
..... *Fumio Fukuda*, Dept. of Orthop. Surg., Kitakyushu General Hosp. ...S465

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

- 3-10-S60-1 Etiology and epidemiology of hip osteoarthritis in Japan
..... *Taishi Sato, et al.*, Dept. of Orthop. Surg.,
Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ. ...S466
- 3-10-S60-2 Pelvic morphology in the pathogenesis of hip osteoarthritis
..... *Masanori Fujii*, Dept. of Orthop. Surg., Saga Univ. ...S466

- 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

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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 Noshinkeigeka Junkannkainaika 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
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| 3-11-13 | Total hip arthroplasty via the direct anterior approach with the dual mobility cup for displaced femoral neck fracture in dementia <i>Ryuji Okuno, et al.</i> , 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 <i>Masaru Kadowaki, et al.</i> , Dept. of Orthop., Shimane Univ. ...S476 | |
| 3-11-15 | Does THA approach affect postoperative DVT occurrence?: A retrospective study <i>Yasuyuki Omichi, et al.</i> , 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 <i>Masanori Nishi, et al.</i> , 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 <i>Koshiro Shimasaki, et al.</i> , 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 <i>Ryuichiro Okuda, et al.</i> , 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
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| 3-11-LS35 | The efficiency of medical management in the orthopaedic department <i>Hideaki Shiratsuchi</i> , Funabashi Orthop. Hosp. ...S479 | |
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13 : 25 ~ 14 : 25	Free papers 53 THA: Sagittal balance	Moderators A. Sato, T. Hayama
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| 3-11-19 | Relationship between preoperative spinal deformity and spinal stiffness and the hip-spine classification in total hip arthroplasty patients <i>Koki Abe, et al.</i> , 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 <i>Yuta Matsuki, et al.</i> , 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 <i>Hideki Fukuchi, et al.</i> , Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine ...S481 | |
| 3-11-22 | The factors of contributing to pelvic obliquity after THA <i>Takehiro Kawakami, et al.</i> , Dept. of Orthop. Surg.,
Yamaguchi Prefectural Grand Medical Center ...S481 | |
| 3-11-23 | Does preoperative radiographical degenerative lumbar spondylolisthesis improve after total hip arthroplasty? <i>Yaichiro Okuzu, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S482 | |
| 3-11-24 | Subluxation sign in the patients after total hip arthroplasty <i>Youngwoo Kim, et al.</i> , Dept. of Orthop. Surg., Kyoto City Hosp. ...S482 | |

15 : 55 ~ 17 : 15	Symposium 61 Clinical application of EMS (electrical muscle stimulation)	Moderators Y. Hoshino, K. Takeshita
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| 3-11-S61-1 | Clinical application of EMS to the rehabilitation of visceral impairment <i>Masahiro Kohzuki</i> , Yamagata Prefectural Univ. of Health Sciences ...S483 | |
| 3-11-S61-2 | Perspective of EMS therapy in clinical applications <i>Toru Ogata</i> , Rehabilitation Center, The Univ. of Tokyo Hosp. ...S483 | |
| 3-11-S61-3 | Effects of electrical muscle stimulation on the joint contracture <i>Minoru Okita</i> , Institute of Biomedical Sciences (Health Sciences), Nagasaki Univ. ...S484 | |

- 3-11-S61-4 The necessity of increasing activity level and clinical application of electrical muscle stimulation *Hideki Tanabe*, Tanabe Orthop. Clinic...S484

17 : 30 ~ 18 : 30 Free papers 54
Wrist & finger fractures

Moderators H. Hashizume, Y. Kobayashi

- 3-11-25 Reduction parameters of distal radius fracture using 3D vectors
..... *Yuichi Yoshii, et al.*, Dept. of Orthop. Surg., Tokyo Medical Univ. Ibaraki Medical Center...S485
- 3-11-26 Dorsiflexion casting prevents dislocation of Colles fractures: A finite element analysis study
..... *Tatsuki Kobayashi, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S485
- 3-11-27 Investigation of relationship between volar tilt and volar lunate deviation after surgical treatment of distal radius fracture
..... *Daichi Sakamoto, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ...S486
- 3-11-28 Comparison of the frequency of complications associated with volar locking plate fixation for distal radius fractures
..... *Yasushi Naganuma, et al.*, Dept. of Orthop. Surg., Yamagata Prefectural Central Hosp...S486
- 3-11-29 Results of treatment for scaphoid nonunion with a minimally invasive surgical technique
..... *Taichi Saito, et al.*, Dept. of Orthop. Surg., Okayama Univ. Hosp...S487
- 3-11-30 Method and usefulness of volar compression pinning for dorsal interphalangeal joint fracture dislocation *Tatsuya Kunimoto, et al.*, Japanese Red Cross Society Kyoto Daini Hosp...S487

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8 : 00 ~ 9 : 00 Instructional lecture 49

Moderator S. Yamazaki

- 3-12-EL49 Treatment strategies for fracture-related infections: Tips, tricks, and traps for success with the Papineau technique, Ilizarov method, and Masquelet technique
..... *Yoshinobu Watanabe*, Dept. of Orthop. Surg., Teikyo Univ...S488

9 : 15 ~ 10 : 15 Instructional lecture 50

Moderator H. Yamada

- 3-12-EL50 New developments in postoperative pain management: From chronic phase to acute phase
..... *Tomoyuki Kawamata*, Dept. of Anesth., Wakayama Medical Univ...S488

10 : 30 ~ 11 : 30 Free papers 55
Upper limb fractures/microsurgery

Moderators N. Hidaka, S. Iwabu

- 3-12-1 Prognosis and influencing factors in surgical cases of proximal humerus fractures
..... *Tomohiro Izawa*, Dept. of Orthop. Surg., Sapporo Medical Univ...S489
- 3-12-2 Pathobiomechanics of proximal humeral fracture: A simulation study using 3-dimensional finite element method *Hiroataka Sano, et al.*, Div. of Orthop., Sendai City Hosp...S489
- 3-12-3 Predictors causing complications in cubitus varus deformity after supracondylar fracture
..... *Kunihiro Oka, et al.*, Dept. of Orthop. Biomaterial Science, Graduate School of Medicine, Osaka Univ...S490
- 3-12-4 Acceptable range of forearm deformity derived from relation to 3D analysis and clinical impairments in malunited diaphyseal both-bone forearm fractures
..... *Ryoya Shiode, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ...S490
- 3-12-5 Utility of the superficial femoral artery as a recipient vessel in free flap knee reconstruction
..... *Makoto Motomiya, et al.*, Dept. of Orthop. Surg., Obihiro Kosei Hosp...S491
- 3-12-6 Total management for acute phase of traumatic popliteal artery injury
..... *Yuta Izawa, et al.*, Trauma Center, Shonan Kamakura General Hosp...S491

12 : 00 ~ 13 : 10	Luncheon seminar 36	Moderator Y. Mikami
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- 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 Computer assisted surgery & AI	Moderators S. Takahashi, K. Sato
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- 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
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- 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 A new standard for training spine surgeons	Moderators H. Taneichi, S. Imagama
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- 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
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- 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

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8 : 00 ~ 9 : 00	Instructional lecture 53	Moderator K. Fujita
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- 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
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- 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
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- 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 kneeYoichi Kaneuchi, Dept. of Orthop. Surg., Fukushima Medical Univ....S504

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

- 3-13-11 Prognostic factors in patients with bone metastasis of renal cell carcinoma in the era of immune checkpoint inhibitors
 *Yuki Ishibashi, et al.*, Dept. of Orthop. Surg., The Univ. of Tokyo Hosp., The Univ. of Tokyo...S508
- 3-13-12 Should contrast medium be used in whole-body CT for skeletal metastasis of unknown primary origin at the initial visit? *Toshio Kojima, et al.*, Dept. of Orthop. Surg., Nihon Univ...S508

14 : 40 ~ 15 : 40	Instructional lecture 55	Moderator T. Matsushita
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- 3-13-EL55-1 Posterior root tears of the menisci: Pathologies and treatments
 *Takayuki Furumatsu*, Dept. of Orthop. Surg., Okayama Red Cross Hosp...S509
- 3-13-EL55-2 Transition of treatment for meniscus injuries and extrusion
 *Hideyuki Koga*, Dept. of Joint Surg. and Sports Medicine,
 Graduate School of Medical and Dental Sciences, Institute of Science Tokyo...S509

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

- 3-13-S63-1 Considerations for transferring traffic accident patients from acute care hospitals to clinics and for receiving referrals from clinics
 *Shigeru Harada*, Dept. of Orthop. Surg., Tsukubagakuen Hosp...S510
- 3-13-S63-2 Problems with bodily injury indemnity actual-cost coverage, health insurance use and health insurance bundling *Katsumi Nakamura*, Nakamura Orthop. Clin...S510
- 3-13-S63-3 Post-traumatic dropped head syndrome and persistent cervical pain in a super-aged society
 *Kenji Endo, et al.*, Dept. of Orthop. Surg., Tokyo Medical Univ...S511
- 3-13-S63-4 Medical documents, the importance, the indispensability
 *Kohei Yashima*, General Insurance Rating Organization of Japan...S511
- 3-13-S63-5 Response to non-life insurance intervention during the treatment period
 *Mamoru Hanari*, Hibiki Sogo Law Office...S512

17 : 30 ~ 18 : 30	Free papers 59 Pelvic fracture	Moderators T. Mae, Y. Kokubo
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- 3-13-13 Development and external validation of an AI for diagnosing sacral fractures from plain radiographs: A multicenter study *Naoya Inagaki, et al.*, Dept. of Orthop. Surg.,
 The Kashiwa Hosp. of the Jikei Univ. School of Medicine...S513
- 3-13-14 Quantitative evaluation of bone marrow edema in dual-energy CT (DECT) for sacral fractures and its clinical significance *Takahiro Oda, et al.*, Dept. of Orthop. Surg., Nishinomiya Hosp...S513
- 3-13-15 Hip position influences the susceptibility to Rommens type IIIa fragility fractures of the pelvis caused by lateral falls *Kunihiko Arakawa, et al.*, Dept. of Orthop. Surg., Teikyo Univ...S514
- 3-13-16 History of fragility fracture network Japan and national hip fracture database
 *Noriaki Yamamoto, et al.*, Dept. of Orthop., Niigata Rehabilitation Hosp...S514
- 3-13-17 Outcome and complications of acetabular fracture open surgery: A multicenter retrospective observational study *Keisuke Ishii, et al.*, Dept. of Orthop. Surg., Teikyo Univ...S515
- 3-13-18 Finite element analysis of internal fixation methods in pelvic ring fractures
 *Toshihiro Seki, et al.*, Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine...S515