

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

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

4th Day May 25 Room 1 (TIF, Hall A)

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

8 : 00 ~ 9 : 00	Invited lecture 20 (English)	Moderator S. Tanaka
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- 4-1-IL20-1 How is technology helping us in advancing hip surgery?
..... *Vikas O. Khanduja*, Cambridge Young Adult Hip Service,
Addenbrooke's Hosp., Cambridge, UK...S516
- 4-1-IL20-2 Femoral osteotomies for osteonecrosis of the femoral head: The identity of Japanese
hip surgery *Goro Motomura*, Dept. of Orthop. Surg., Clinical Medicine,
Graduate School of Medical Sciences, Kyushu Univ...S516

9 : 05 ~ 10 : 05	Instructional lecture 56	Moderator H. Takahashi
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- 4-1-EL56 The current status and future of minimally invasive spinal treatment (MIST)
..... *Ken Ishii, et al.*, New Spine Clinic Tokyo...S517

10 : 10 ~ 11 : 30	Symposium 64	Moderators M. Matsumoto, S. Demura
Treatment strategies for pediatric scoliosis		

- 4-1-S64-1 The status of equipment-based school screening for scoliosis at Nara city and its importance
..... *Hideki Shigematsu, et al.*, Dept. of Orthop. Surg., Nara Medical Univ...S517
- 4-1-S64-2 Long-term outcomes in patients with nonoperatively treated AIS: A mean 25-year follow-up
..... *Masayuki Ohashi, et al.*, Div. of Orthop. Surg., Dept. of Regenerative and
Transplant Medicine, Niigata Univ. Graduate School of Medical and Dental Sciences...S518
- 4-1-S64-3 Long-term outcome of adolescent idiopathic scoliosis surgery
..... *Tsutomu Akazawa, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S518
- 4-1-S64-4 Four-dimensional spinal reconstruction using anatomically pre-bent rods in adolescent
idiopathic scoliosis *Hideki Sudo*, Dept. of Orthop. Surg., Hokkaido Univ. Hosp...S519
- 4-1-S64-5 The complications associated with pediatric spinal deformity surgery, their predictions
and management *Teppei Suzuki, et al.*, Dept. of Orthop. Surg.,
National Hosp. Organization Kobe Medical Center...S519
- 4-1-S64-6 Treatment strategies for severe spinal deformities in children
..... *Haruhisa Yanagida, et al.*, Dept. of Orthop. & Spine Surg., Fukuoka Children's Hosp...S520

12 : 00 ~ 13 : 10	Luncheon seminar 38	Moderator T. Tomita
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- 4-1-LS38-1 Role of orthopaedic surgeons in the treatment of axial spondyloarthritis
..... *Kenji Kishimoto*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,
Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S520
- 4-1-LS38-2 The role of the orthopaedics in the management of psoriatic arthritis
..... *Tadashi Okano*, Center for Senile Degenerative Disorders,
Osaka Metropolitan Univ. Graduate School of Medicine...S521

14 : 40 ~ 15 : 40	Seminar for the physician teaching and managing the pediatric musculoskeletal disease	Moderator H. Kitoh
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Requirements and diseases for pediatric musculoskeletal disease management fees

..... *Tatsuhiko Ochiai*, Dept. of Orthop. Surg., Miyagi Children's Hosp. ...S521

4th Day May 25 Room 2

8 : 00 ~ 9 : 00	Instructional lecture 57	Moderator H. Ito
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4-2-EL57 Perioperative prevention and treatment of infections following total hip arthroplasty
 *Toshiyuki Tateiwa*, Dept. of Orthop. Surg., Tokyo Medical Univ. ...S522

9 : 15 ~ 10 : 15	Instructional lecture 58	Moderator M. Doita
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4-2-EL58 Comprehensive treatment for the patients with chronic low back pain and spinal deformity:
 From conservative treatment to surgical one
 *Osamu Shirado*, AMEC, Fukushima Medical Univ. ...S522

10 : 30 ~ 11 : 30	Instructional lecture 59	Moderator M. Akagi
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4-2-EL59 Current status and innovations in total knee arthroplasty
 *Shuichi Matsuda*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S523

13 : 25 ~ 14 : 25	Instructional lecture 60	Moderator K. Nakanishi
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4-2-EL60 Updates on neurological diseases ... *Kinya Ishikawa*, Dept. of Neurol., Institute of Science Tokyo ...S523

14 : 40 ~ 15 : 40	Free papers 60	Moderators M. Moriyama, T. Takagi
	Patient safety/medical education	

- 4-2-1 Assessment of fall risk and adverse events in general ward inpatients at a regional general hospital in Japan *Tetsuo Hagino, et al.*, Dept. of Orthop. Surg., NHO Kofu Hosp. ...S524
- 4-2-2 Survey of hand skin radiation exposure among orthopaedic surgeons: A five-year longitudinal cohort study
 *Gentaro Kumagai, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine ...S524
- 4-2-3 Occupational radiation exposure status of spine surgeons: Verification based on the results of lens and hand examinations *Kazuta Yamashita, et al.*, Dept. of Orthop.,
 Institute of Biomedical Sciences, Tokushima Univ. Graduate School ...S525
- 4-2-4 Items that should be fully explained as informed consent to patients undergoing total hip arthroplasty: Multi-center questionnaire survey
 *Tomohiro Mimura, et al.*, Dept. of Osteochondral Metabolism and Joint Reconstruction,
 Shiga Univ. of Medical Science ...S525
- 4-2-5 Frequency and clinical outcomes of incidental findings on contrast-enhanced CT for thrombosis evaluation after hip surgery *Akihito Oya, et al.*, Dept. of Orthop. Surg., Keio Univ. ...S526
- 4-2-6 Case-control studies in orthopaedics: A systematic review of core clinical journals
 *Takahiro Inui, et al.*, Dept. of Orthop. Surg., Teikyo Univ. ...S526

4th Day May 25 Room 3

8 : 00 ~ 9 : 20 JOA Directors' proposed symposium 7 Moderators T. Ohe, T. Yamauchi
Conquering metabolic syndrome and locomotive syndrome

- 4-3-JS7-1 Metabolically obese, sarcopenia, and brain function: The Bunkyo health study
 *Yoshifumi Tamura*, Dept. of Sports Medicine and Sportology, Metabolism & Endocrinology,
 Sportology Center, Juntendo Univ. Graduate School of Medicine...S527
- 4-3-JS7-2 Why does muscle mass decrease?: From the perspectives of diabetes and immobilization
 *Wataru Ogawa*, Div. of Diabet. and Endocrinol.,
 Dept. of Int. Med., Kobe Univ. Graduate School of Medicine...S527
- 4-3-JS7-3 The mutual association between metabolic syndrome and locomotive syndrome: Insights from
 the road study
 *Noriko Yoshimura, et al.*, Dept. of Preventive Medicine for Locomotive Organ Disorders,
 22nd Century Medical and Research Center, Graduate School of Medicine, The Univ. of Tokyo...S528
- 4-3-JS7-4 Obesity and ossification of the posterior longitudinal ligament of the spine
 *Masahiko Takahata, et al.*, Dept. of Orthop. Surg., Dokkyo Medical Univ....S528
- 4-3-JS7-5 Clinical outcome of physical exercise by low-load resistance training with a slow movement
 protocol for diabetes mellitus patients
 *Toru Morihara, et al.*, Marutamachi Rehabilitation Clinic...S529

10 : 10 ~ 11 : 30 Symposium 65 Moderators M. Watanabe, M. Takaso
The latest in musculoskeletal transplantation and regenerative medicine

- 4-3-S65-1 Regenerative therapy and rehabilitation for spinal cord injury
 *Narihito Nagoshi*, Dept. of Orthop. Surg., Keio Univ....S530
- 4-3-S65-2 Up-to-date regenerative medicine on peripheral nerve
 *Ryosuke Ikeguchi, et al.*, Rehabilitation Units, Kyoto Univ. Hosp....S530
- 4-3-S65-3 Up-to-date in allogenic bone and ligament grafting
 *Gen Inoue, et al.*, Dept. of Orthop. Surg., Kitasato Univ....S531
- 4-3-S65-4 Up to date of articular cartilage regeneration *Nobuo Adachi, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ....S531
- 4-3-S65-5 3D-MRI analysis of cartilage thickness changes after PRP injection in knee osteoarthritis
 *Ichiro Sekiya, et al.*, Center for Stem Cell and Regenerative Medicine,
 Institute of Science Tokyo...S532

12 : 00 ~ 13 : 10 Luncheon seminar 39 Moderator T. Ogura

- 4-3-LS39 Attack on PAIN Free: High dose PRP therapy: A New treatment strategy focusing on total
 platelet dose *Yuki Shimizu*, Inagi Hirao Orthop. Clinic...S533

13 : 25 ~ 14 : 45 JOA Directors' proposed symposium 8 Moderators R. Kuroda, T. Kunisada
Promoting international collaborative research across borders

- 4-3-JS8-1 The role of musculoskeletal and orthopaedic care in building a platform for international
 collaborative clinical research *Ken Nakata, et al.*, Dept. of Global Innovative Medicine,
 Graduate School of Medicine, Osaka Univ....S534
- 4-3-JS8-2 International collaborative research on genetic analysis of adolescent idiopathic scoliosis
 *Kota Watanabe*, Dept. of Orthop. Surg., Keio Univ....S534
- 4-3-JS8-3 International collaborative basic research on hip joint disorders and massive bone defects
 (Stanford University)
 *Toshiyuki Kawai*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ....S535

- 4-3-JS8-4 International multi-center randomized controlled trial comparing soft-tissue quadriceps and hamstring autograft tendons during primary ACL reconstruction in skeletally immature patients
 *Kanto Nagai, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S535
- 4-3-JS8-5 Why do we conduct international studies?
 *Shintaro Iwata*, Dept. of Musculoskeletal Oncology and Rehab., National Cancer Center Hosp...S536

14 : 50 ~ 15 : 40 **Free papers 61 Infection: Treatment Moderators S. Abe, K. Uchiyama**

- 4-3-1 Treatment outcomes of continuous local antibiotic perfusion therapy for periprosthetic joint infections in our hospital
 *Keisuke Oe, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S537
- 4-3-2 Antimicrobial prophylaxis with cefazolin compared with other B-lactams for lower extremity fractures: A cohort study
 *Takaki Yoshiyama, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ...S537
- 4-3-3 Masquelet technique for fracture-related infection: Is the intraoperative gram stain polymorphonuclear leukocyte count a predictor of recurrence?
 *Akifumi Honda, et al.*, Dept. of Orthop. Surg., Teikyo Univ...S538
- 4-3-4 Factors affecting treatment outcomes in fracture-related infections: A multicenter study
 *Shunsuke Takahara, et al.*, Dept. of Orthop. Surg., Hyogo Pref. Kakogawa Medical Center...S538
- 4-3-5 Effectiveness of treatment of pyogenic spondylitis with antimicrobial stewardship team
 *Toshihiro Sano, et al.*, Dept. of Orthop. Surg., Susaki Kuroshio Hosp...S539

4th Day May 25 Room 4

8 : 00 ~ 9 : 20 **Symposium 66 Moderators T. Murase, K. Murata**
The forefront of Kienböck's disease treatment

- 4-4-S66-1 Radial osteotomy for Kienböck disease: Clinical and radiological comparison between younger and older patients *Michiro Yamamoto, et al.*, Div. of Human Enhancement & Hand Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S540
- 4-4-S66-2 Partial capitate shortening for Kienböck disease ... *Sayuri Arimitsu, et al.*, Osaka National Hosp...S540
- 4-4-S66-3 Treatment of Kienböck disease with bone marrow transfusion, external fixation, and LIPUS and evaluation of intramedullary hemodynamics in the lunate
 *Takeshi Ogawa, et al.*, Dept. of Orthop. Surg., NHO Mito Medical Center...S541
- 4-4-S66-4 Lunate resection and vascularized os pisiform transfer for Kienböck's disease
 *Masaomi Saeki*, Div. of Human Enhancement & Hand Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S541
- 4-4-S66-5 Arthroscopic capitate partial resection and lunate excision for advanced Kienböck disease
 *Kenji Kawamura, et al.*, Susumu Tamai Memorial Limb Trauma Center, Nara Medical Univ. Hosp...S542

10 : 10 ~ 11 : 30 **JOA Directors' proposed symposium 9 Moderators A. Terakado, Y. Kawaguchi**
JOANR and specialized society registries:
Utilization and necessity of JOANR/specialized society registries
for the Japanese Health Insurance Federation for surgery draft proposal

- 4-4-JS9-1 Appropriate medical fees in surgical treatment from an academic perspective
 *Tadashi Iwanaka*, Saitama Prefectural Hosp. Organization...S543

- 4-4-JS9-2 JOANR as a national registry system in Japan and its use for medical-care fee assessment
..... *Yutaka Hiraizumi*, Dept. of Orthop. Surg., Showa Univ. ...S543
- 4-4-JS9-3 Utilization of JOANR and related society registries: Necessity in the draft proposal of Japanese health insurance federation for surgery
..... *Tokumi Kanemura, et al.*, Dept. of Orthop. Surg., Konan Kosei Hosp. ...S544
- 4-4-JS9-4 Utilization of the Japan Artificial Joint Registry (JAR) for policy responses such as the Gaihoren draft proposal *Haruhiko Akiyama*, Dept. of Orthop. Surg., Div. of Disease Control, Research field of Medical Sciences, Graduate School of Medicine, Gifu Univ. ...S544
- 4-4-JS9-5 Current perspective for establishment and improvement of remuneration in spine and spinal cord surgery using the JOANR/JSSR registry
..... *Takashi Hirai, et al.*, Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Institute of Science Tokyo ...S545

12 : 00 ~ 13 : 10

Luncheon seminar 40

Moderator M. Saito

- 4-4-LS40 Aiming for patient-valued osteoporosis treatment: Tips for the proper use of teriparatide
..... *Masahiko Takahata*, Dept. of Orthop. Surg., Dokkyo Medical Univ. ...S546

13 : 25 ~ 14 : 45

JOA Directors' proposed symposium 10 Moderators M. Ikeuchi, A. Higashikawa
The second year of physician work style reform

- 4-4-JS10-1 Work style reform for orthopaedic surgeons in small regional hospitals
..... *Hironori Otsuka*, Dept. of Orthop. Surg., JCHO Akita Hosp. ...S547
- 4-4-JS10-2 Workstyle reform through the eyes of women orthopaedic surgeons
..... *Kazuyo Yamauchi*, Dept. of Com. Meded., Graduate School of Medicine, Chiba Univ. ...S547
- 4-4-JS10-3 Work style reform for orthopaedic surgeons by hospitalist
..... *Yukio Sonoda*, HITO Medical Center ...S548
- 4-4-JS10-4 C-2 level in physician work reform: Current status and future prospects
..... *Aoi Fujikawa*, St. Luke's International Hosp. ...S548
- 4-4-JS10-5 The efforts to address physician's work style reform in Showa University Hospital
..... *Yoshifumi Kudo*, Dept. of Orthop. Surg., Showa Univ. ...S549

14 : 50 ~ 15 : 40

Free papers 62

Moderators N. Nakamura, Y. Taniguchi

Pediatric orthopedics: Spine/miscellaneous

- 4-4-1 The change of asymptomatic atlantoaxial instability with down syndrome from infant to adolescent in Japanese population: Minimum 10 years follow-up
..... *Masayoshi Machida, et al.*, Dept. of Orthop. Surg., Saitama Children's Medical Center ...S550
- 4-4-2 Awareness survey of scoliosis: A way to increase the uptake of secondary screening
..... *Takuya Nagai, et al.*, Div. of Orthop. Surg., Dept. of Medicine of Sensory and Motor Organs, Faculty of Medicine, Univ. of Miyazaki ...S550
- 4-4-3 Experience of bulbocavernous reflex monitoring in selective dorsal rhizotomy
..... *Yoshiaki Oda, et al.*, Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ. ...S551
- 4-4-4 Nationwide survey of Segawa disease: History of orthopaedic visit
..... *Yuko Segawa, et al.*, Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Institute of Science Tokyo ...S551
- 4-4-5 Examination of bone metabolism in children with cerebral palsy change over the years
..... *Yoshimi Asagai, et al.*, Dept. of Orthop. Surg., Shinano Handicapped Children's Hosp. ...S552

4th Day May 25 Room 5

8 : 00 ~ 9 : 00 Free papers 63 Adult spinal deformity 3 Moderators S. Taniguchi, K. Kawaguchi

- 4-5-1 10 years results following corrective fusion surgery using 3-column osteotomy in patients with adult spinal deformity *Yu Yamato, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine...S553
- 4-5-2 Reference threshold of paraspinal muscle volumes for deciding the necessity of pelvic foundation or long fusion in adult spine surgery
..... *Yoshinori Ishikawa, et al.*, Dept. of Orthop. Surg., Akita Kousei Medical Center...S553
- 4-5-3 A longitudinal cohort study of radiographic and non-radiographic factors related to changes in global spinal balance *Kengo Sasai, et al.*, Dept. of Orthop. Surg., Asahikawa Medical Univ....S554
- 4-5-4 Preoperative T1 slope of 40° or more leads to poor cervicothoracic alignment in non-fixed vertebrae 5 years post-surgery
..... *Yusuke Murakami, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine...S554
- 4-5-5 Effects of a lower limb skeletal muscle supporter using rubber contraction on gait improvement in adults with spinal deformity *Hideyuki Arima, et al.*, Nx-CEC, Hamamatsu Univ. School of Med....S555
- 4-5-6 Predicting the progression of adult spinal deformity from non-radiographic parameters: Using the ASD-MJ index *Kozaburo Mizutani, et al.*, Dept. of Orthop. Surg., Asahikawa Medical Univ....S555

9 : 15 ~ 10 : 15 Free papers 64 Spine & pelvic alignment Moderators T. Imuro, K. Harimaya

- 4-5-7 Prevalence and progression of hip osteoarthritis in patients with spinal DISH
..... *Masaya Kubota, et al.*, Dept. of Orthop. Surg., Kyoto Univ. Hosp....S556
- 4-5-8 Effect of pelvic incidence on the natural course of spino-pelvic alignment deterioration
..... *Yu Yamato, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine...S556
- 4-5-9 The relation between radiographic spinopelvic alignment and physical function in a community-based female cohort
..... *Hisashi Chiba, et al.*, Dept. of Rehabilitation, Furano Geriatric Health Services Facility...S557
- 4-5-10 A longitudinal cohort study of anew vertebral fracture and its impact upon spinopelvic alignment
..... *Yuka Hirono, et al.*, Dept. of Orthop. Surg., Oonishi Hosp....S557
- 4-5-11 Risk assessment of adjacent segment diseases after lumbar interbody fusion using a three-dimensional musculoskeletal model
..... *Ryota Kimura, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine...S558
- 4-5-12 Relationship between changes in cervical alignment and thoracolumbar-pelvic parameters and cervical degenerative sites *Mutsuya Shimizu, et al.*, Dept. of Orthop. Surg., Kyouritsu Hosp....S558

10 : 30 ~ 11 : 30 Instructional lecture 61 Moderator K. Takeshita

- 4-5-EL61 Diagnosis, symptoms and treatment of adult spinal deformity
..... *Naobumi Hosogane*, Dept. of Orthop. Surg., Kyorin Univ....S559

12 : 00 ~ 13 : 10 Luncheon seminar 41 Moderator T. Kumai

- 4-5-LS41 Treatment strategies for knee osteoarthritis in the clinic: From extracorporeal shockwave therapy to intraosseous administration of MSCs *Shinya Nakasato, et al.*, N Clinic...S559

**13 : 25 ~ 14 : 45 Symposium 67 Moderators A. Myoui, S. Matsuda
Activating domestic medical device development**

- 4-5-S67-1 Exit strategy for medical device development *Kazuhisa Koike*, PMDA...S560
- 4-5-S67-2 Tips for medical device development *Miyuki Shimizu*, Medical Lab Partners...S560
- 4-5-S67-3 Social implementation of medical devices developed using technology from academia
..... *Takashi Kaito, et al.*, Dept. of Orthop. Surg. Osaka Rosai Hosp....S561

- 4-5-S67-4 Developments of medical devices originating from Japan and efforts to expand into international markets *Masayuki Kyomoto*, Medical R&D Center, KYOCERA...S561
- 4-5-S67-5 Challenges and business strategies for creating innovations in orthopaedic implant materials from the perspective of the medical device industry *Haruhiko Ishizaka*, Teijin Nakashima Medical Co., Ltd...S562

14 : 50 ~ 15 : 40	Free papers 65 Pain	Moderators K. Hashiguchi, J. Hashimoto
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- 4-5-13 Pain in middle-aged and older adults living in the community focusing on central sensitization: Relationships with neuropathic pain and QOL *Naoki Segi, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S563
- 4-5-14 Electroencephalographic assessment of pain in patient with complex regional pain syndrome *Katsuyuki Iwatsuki, et al.*, Div. of Human Enhancement & Hand Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S563
- 4-5-15 Associations of synovial nerve growth factor and vascular endothelial growth factor with pain characteristics in patients with knee OA *Koji Aso, et al.*, Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ...S564
- 4-5-16 Women-specific issues impact pain *Tomoko Tetsunaga, et al.*, Locomotive Pain Center, Okayama Univ. Hosp...S564
- 4-5-17 A 5-year longitudinal study of factors contributing to the development of low back pain in healthy subjects: Yakumo study *Sadayuki Ito, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S565

4th Day May 25 Room 6

8 : 00 ~ 9 : 20	Symposium 68	Moderators H. Haro, K. Nishida
Development and challenges in innovative intervertebral disc regeneration treatments		

- 4-6-S68-1 Gene therapeutic approach to prevent intervertebral disc degeneration by maintaining homeostasis *Takashi Yurube, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S566
- 4-6-S68-2 Development of regenerative therapy for intervertebral disk degeneration by replacement with iPS cell-derived nucleus pulposus *Takashi Kaito, et al.*, Dept. of Orthop. Surg. Osaka Rosai Hosp...S566
- 4-6-S68-3 Platelet-rich plasma (PRP) for intervertebral disc regenerative therapy *Koji Akeda*, Dept. of Musculoskeletal Surg., Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine...S567
- 4-6-S68-4 Clinical trials for discogenic low back pain and their challenges *Daisuke Sakai, et al.*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ...S567
- 4-6-S68-5 Phase 1/2 clinical trials of intervertebral disc regeneration therapy using ultra-high purity biomaterials and bone marrow-derived stem cells *Katsuhisa Yamada, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S568

9 : 25 ~ 10 : 25	Free papers 66 Osteoporosis: Treatment 1	Moderators T. Nagai, M. Ota
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| 4-6-1 | Incidence of medication-related osteonecrosis of the jaw in Kure: Kure data-based results and evidence assisted by a multiprofession study (KureDREAMS)
..... <i>Manabu Tsukamoto, et al.</i> , Dept. of Orthop. Surg., School of Medicine,
Univ. of Occupational and Environmental Health...S569 | S569 |
| 4-6-2 | Four-year treatment continuation rates of osteoporosis drugs with different dosing intervals
..... <i>Kazuteru Ryu, et al.</i> , Kanai Hosp...S569 | S569 |
| 4-6-3 | Investigation of the effect of romosozumab on aortic calcification
..... <i>Yoshihiro Ishihama, et al.</i> , Dept. of Orthop. Surg., Kindai Univ. Faculty of Medicine...S570 | S570 |
| 4-6-4 | Impact of bone turnover at drug initiation on BMD increase with romosozumab, teriparatide, and denosumab in primary osteoporosis <i>Yuki Etani, et al.</i> , Dept. of Sports Medical Biomechanics,
Graduate School of Medicine, Osaka Univ...S570 | S570 |
| 4-6-5 | Incidence of adverse events in patients with bone metastases receiving denosumab therapy :
A single-center large-scale clinical study
..... <i>Hirokazu Tanaka, et al.</i> , Dept. of Orthop., Juntendo Univ...S571 | S571 |
| 4-6-6 | Romosozumab can be expected to increase BMD, especially in patients with low lumbar spine bone density and high bone resorption
..... <i>Yuki Mori, et al.</i> , Dept. of Orthop., Graduate School of Medical Science,
Kyoto Prefectural Univ. of Medicine...S571 | S571 |

10 : 30 ~ 11 : 30	Free papers 67 Osteoporosis: Treatment 2	Moderators T. Mawatari, M. Takaesu
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| 4-6-7 | Relationship between osteoporosis drugs and renal function
..... <i>Takashi Nagai, et al.</i> , Dept. of Rehabilitation Medicine, Showa Univ...S572 | S572 |
| 4-6-8 | Efficacy of osteoanabolic agents in secondary fracture after surgery for osteoporotic fractures:
A propensity score-matched analysis
..... <i>Toshiya Shitahodo, et al.</i> , Dept. of Orthop. Surg., Shingu Municipal Medical Center...S572 | S572 |
| 4-6-9 | Factors contributing to increased bone mineral density of total hip treated with romosozumab
..... <i>Tomoko Kanazawa, et al.</i> , Dept. of Orthop. Surg., Takasago Municipal Hosp...S573 | S573 |
| 4-6-10 | Comparison of osteoporosis treatment adherence across hospitals focusing on the impact of insurance points of secondary fracture prevention
..... <i>Yukinori Tsukuda, et al.</i> , Dept. of Orthop. Surg., Otaru General Hosp...S573 | S573 |
| 4-6-11 | Effect of osteoporosis treatment on contralateral hip fracture after initial hip fracture:
Retrospective cohort study using large-scale database (J-BOLD study)
..... <i>Shinichi Ueki, et al.</i> , Dept. of Orthop. Surg.,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S574 | S574 |
| 4-6-12 | Continuation rate and family support from the perspective of the introduction of teriparatide twice a week in acute care hospitals <i>Saori Imura, et al.</i> , Dept. of Orthop.,
Japanese Red Cross Aichi Medical Center Nagoya Daini Hosp...S574 | S574 |

12 : 00 ~ 13 : 10	Luncheon seminar 42	Moderator H. Haro
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| 4-6-LS42-1 | Treatment strategies for osteoporotic vertebral fractures aimed at ADL maintenance:
Are you somehow doing conservative treatment?
..... <i>Satoshi Makio, et al.</i> , Dept. of Orthop. Surg., Rakuwakai Marutamachi Hosp...S575 | S575 |
| 4-6-LS42-2 | Total care for osteoporotic vertebral fractures: Optimal surgical procedure with emphasis on anterior column reconstruction, surgical techniques, and drug therapy
..... <i>Masayuki Ishihara, et al.</i> , Dept. of Orthop. Surg., Kansai Medical Univ...S575 | S575 |

13 : 25 ~ 14 : 45 **Symposium 69**

Moderators **A. Abe, N. Takahashi**

The truth of rheumatic diseases based on actual clinical practice

- 4-6-S69-1 Diagnosis and treatment of spondyloarthritis from the perspective of an orthopaedic surgeon
 *Yu Mori*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine...S576
- 4-6-S69-2 Diagnosis of rheumatic diseases using ultrasonography: Enhancing treatment accuracy
 *Tadashi Okano*, Center for Senile Degenerative Disorders,
 Osaka Metropolitan Univ. Graduate School of Medicine...S576
- 4-6-S69-3 Circulated cooperation of the hospital and polyclinic for rheumatoid arthritis treatment in
 Yamagata area (YARANNA network)
 *Yuya Takakubo, et al.*, Dept. of Orthop. Surg., Yamagata Univ...S577
- 4-6-S69-4 Evidence of orthopaedic surgery in rheumatoid arthritis from the KURAMA cohort
 *Koichi Murata*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ...S577
- 4-6-S69-5 Present findings from the ANSWER (Kansai consortium for well-being of rheumatic disease
 patients) cohort
 *Kosuke Ebina, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ...S578

14 : 50 ~ 15 : 40 **Free papers 68 Miscellaneous**

Moderators **H. Hara, C. Azuma**

- 4-6-13 The impact of short sleep duration on musculoskeletal disorders: Bone density reduction in men
 and increased pain sensitivity in women
 *Sadayuki Ito, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S579
- 4-6-14 Current status of gender equality at the annual meeting of the Japanese Orthopaedic Association
 *Shiori Yokota, et al.*, Dept. of Orthop. Surg., Saga Univ...S579
- 4-6-15 Detection of cognitive decline by spinal posture assessment in health exam for the general
 older population *Shota Ikegami, et al.*, Dept. of Orthop. Surg., Shinshu Univ...S580
- 4-6-16 Assessment of the physical load reduction of medical staff by bed transfer assist devices
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- 4-6-17 Relationship between obesity and malnutrition in patients undergoing surgical treatment in the
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- 4-7-EL64-1 How far has genomic analysis revealed the basics of intractable spinal diseases?
 *Chikashi Terao*, RIKEN...S583

- 4-7-EL64-2 Elucidation of the mechanism of progression of OPLL due to obesity and its potential therapeutic applications
 *Masahiko Takahata, et al.*, Dept. of Orthop. Surg., Dokkyo Medical Univ.··S583

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 *Motonori Hashimoto, et al.*, Dept. of Orthop. and Spinal Surg.,
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- 4-7-2 Machine learning models for predicting one-month postoperative performance status in metastatic spinal tumor surgery
 *Satoshi Maki, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.··S585
- 4-7-3 A prospective comparative study using synchronized 3D gait analysis and electromyography: Posture and muscle activity in ASD and L-SCS patients
 *Takahiro Sunami, et al.*, Dept. of Orthop. Surg., Univ. of Tsukuba··S586
- 4-7-4 Standardization of cerebrospinal fluid flow in spine with CINE Dynamic MRI : A preliminary study in healthy volunteer
 *Kazuhiro Takeuchi, et al.*, Dept. of Orthop. Surg., NHO Okayama Medical Center··S586
- 4-7-5 Risk factors for cement leakage and efficacy of using cement-augmented fenestrated pedicle screws in osteoporotic vertebrae *Masato Uematsu, et al.*, Dept. of Orthop. Surg.,
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- 4-7-6 Evaluation of cement leakage in fenestrated pedicle screws
 *Ryo Ugawa, et al.*, Dept. of Orthop. Surg., Kochi Health Sciences Center··S587

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- 4-7-7 The changes of nutritional status of patients undergoing spinal fusion
 *Masahiro Iinuma, et al.*, Dept. of Orthop. Surg.,
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- 4-7-8 Utility of standing CTM for lumbar degenerative disease
 *Soya Kawabata, et al.*, Dept. of Orthop. Surg., Fujita Health Univ.··S588
- 4-7-9 Preoperative gait impairment cutoff values in compression thoracic myelopathy as assessed by the foot tapping test *Mayuko Kuwata, et al.*, Dept. of Rehabilitation Medicine, Chiba Univ. Hosp.··S589
- 4-7-10 Frequency and associated factors of venous thromboembolism in cervical spine surgery
 *Masashi Uehara, et al.*, Dept. of Orthop. Surg., Shinshu Univ.··S589
- 4-7-11 Development and validation of the modified lumbar disability stiffness index
 *Masaki Sakamoto, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.··S590
- 4-7-12 Multiple spine surgeries with remote spinal lesion: A data base study of 4484 patients at a single center
 *Masayuki Furuya, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S590

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- 4-8-JS11-1 Rules and ethical considerations in the implementation of CST
..... *Toshiaki Shichinohe*, Hokkaido Univ. Hosp. Center for Education Research &
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- 4-8-JS11-2 Various methods of fixing donated bodies for CST
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- 4-8-JS11-3 Steering committee *Ichiro Tateya*, Cadaver Surgical Training Center, Fujita Health Univ....S592
- 4-8-JS11-4 The symbiotic relationship between CAL and the department of orthopaedic surgery
..... *Takane Suzuki*, Dept. of Bioenvironmental Medicine.,
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- 4-8-JS11-5 The CST equipment and operation at Nagoya City University
..... *Nobuyuki Suzuki, et al.*, Dept. of Musculoskeletal Health Promotion Medicine,
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..... *Tomoyuki Noda, et al.*, Dept. of Orthop. Trauma Surg. and Sport Med.,
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- 4-8-2 20-year result of revision total hip arthroplasty using impaction bone grafting
..... *Masahiro Inoue, et al.*, Dept. of Orthop. Surg., Eniwa Hosp....S595
- 4-8-3 Clinical outcomes of total hip arthroplasty with subtrochanteric osteotomy in Crowe type IV
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- 4-8-4 Patient-reported outcomes of total hip arthroplasty with femoral shortening osteotomy:
A propensity score-matched cohort study
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- 4-8-5 Clinical results of total hip arthroplasty with subtrochanteric osteotomy: Medium-to long-term
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..... *Kohei Kono, et al.*, Dept. of Orthop. Surg., Ehime Univ. Graduate School of Medicine...S598
- 4-8-8 Evaluation of the relationship between muscle tendon preservation and gait analysis in total
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- 4-8-9 Investigation of risk factors for femoral neck notching after total hip arthroplasty using dual
mobility cup *Yuto Kawamura, et al.*, Dept. of Orthop., Juntendo Univ....S599

- 4-8-10 Evaluation of lower limb alignment changes after total hip arthroplasty using the CPAK classification system *Takahiro Negayama, et al.*, Dept. of Orthop. Surg., Kagawa Univ. ...S599
- 4-8-11 Impact of stem collar-calcus gap distance on postoperative bone remodeling in fully hydroxyapatite-coated stem *Yoshihisa Ohashi, et al.*, Dept. of Orthop. Surg., Kitasato Univ. ...S600
- 4-8-12 Evaluation of the relationship between initial cup fixation and preoperative acetabular bone mineral density in total hip arthroplasty *Ryuichi Sato, et al.*, Dept. of Orthop. Surg., Kanagawa Rehabilitation Hosp. ...S600

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- 4-8-14 Sex differences in acetabular coverage and their relationship to pelvic morphology in hip dysplasia *Hiroto Funahashi, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S602
- 4-8-15 Prevalence of acetabular dysplasia in the Jomon: Preliminary study *Kotaro Hoshino, et al.*, Dept. of Orthop. Surg., Yamane Hosp. ...S603
- 4-8-16 Analysis of compensatory mechanisms of pelvic and lower limb motion in hip osteoarthritis patients with acetabular dysplasia *Shinichi Ueki, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S603
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- 4-8-19 Effect of intra-articular tranexamic acid and carbazochrome sodium sulfonate injection on post-operative blood loss in total hip arthroplasty *Junki Adachi, et al.*, Dept. of Orthop. Surg., Fukuoka Red Cross Hosp. ...S605
- 4-8-20 Efficacy of aromatherapy for postoperative delirium in proximal femoral fracture patients *Kouji Kita, et al.*, Dept. of Orthop. Surg., Iga City General Hosp. ...S605
- 4-8-21 Evaluation of risk of sequelae in elderly rheumatoid arthritis patients with proximal femur fractures *Ryuichi Kanabuchi, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine ...S606
- 4-8-22 Early dosing of edoxaban and the usefulness of soluble fibrin in the prevention of deep vein thrombosis after TKA *Noriaki Mori, et al.*, Dept. of Orthop. Surg., Eniwa Hosp. ...S606
- 4-8-23 Development of the pillow to prevent lower leg complications by a medical-engineering approach *Hiroki Hachisuka, et al.*, Dept. of Orthop. Surg., Tsuchiya General Hosp. ...S607

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- 4-9-2 Gait analysis focusing on nonoperative limb after unilateral total knee arthroplasty in patients with
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.....*Shinichi Kuriyama, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.···S608
- 4-9-3 Is simultaneous bilateral TKA safe and effective for elderly patients?: A propensity score matched
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- 4-9-4 Phase angle can predict functional recovery after total knee arthroplasty
.....*Shota Oda, et al.*, Rehabilitation Center, Kochi Medical School Hosp.···S609
- 4-9-5 A study of bone strength of patella after total knee arthroplasty
.....*Kunihiko Watamori, et al.*, Dept. of Bone and Joint Surg.,
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- 4-9-6 Complication rates in TKA patients over 90 years in Japan: A comparison with patients aged
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- 4-9-8 Short-term outcomes of cold-type peripheral nerve radiofrequency ablation therapy in patients with
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.....*Hironori Kitajima, et al.*, Dept. of Orthop. Surg., Kanazawa Medical Univ. Himi Municipal Hosp.···S611
- 4-9-9 Correlation between MRI and histological analyses for repair tissue of knee chondral lesions
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.....*Kazunori Shimomura, et al.*, Dept. of Rehabilitation, Kansai Univ. of Welfare Sciences···S612
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- 4-9-11 Indications and limitations of PRP therapy for knee osteoarthritis based on the results of the
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.....*Hiroaki Tsukamoto, et al.*, Dept. of Orthop. Surg., Noshiro Kosei Medical Center···S613

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- 4-9-14 Shoulder geometry after reverse total shoulder arthroplasty predicts acromial notching and
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- 4-9-16 Accuracy of placement of the glenoid component in reversed shoulder arthroplasty using a custom baseplate for severe glenoid deficiency...*Katsumasa Nakazawa, et al.*, Dept. of Orthop. Surg., Osaka Metropolitan Univ. Graduate School of Medicine...S615
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- 4-9-18 Short-term clinical results of revision reverse total shoulder arthroplasty after convertible TSA...*Rei Nishiura, et al.*, Dept. of Orthop. Surg., Osaka Metropolitan Univ. Graduate School of Medicine...S616

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- 4-9-LS45 PRGF application for osteoarthritis of the knee...*Tomokazu Yoshioka*, Dept. of Orthop. Surg., Kikkoman General Hosp...S617

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- 4-9-20 Evaluation of rotator cuff muscle fatty infiltration after arthroscopic rotator cuff repair using the MRI IDEAL technique...*Ryohei Sawada, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S618
- 4-9-21 Proposal of a new quantification method for the fatty change of rotator cuff muscles using ImageJ...*Atsushi Arino, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine...S619
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- 4-9-26 Patient-based outcome of arthroscopic rotator cuff repair for cases with contracture complications...*Tatsuki Karasugi, et al.*, Dept. of Orthop. Surg., Kumamoto Univ. Hosp...S621
- 4-9-27 Effect of humeral lengthening on postoperative pain scores by three-dimensional measurements in RSA...*Katsumasa Nakazawa, et al.*, Dept. of Orthop. Surg., Osaka Metropolitan Univ. Graduate School of Medicine...S622
- 4-9-28 Anatomical evaluation of pectoralis minor muscle attachment in coracoid process for transfer...*Naoki Umatani, et al.*, Dept. of Orthop. Surg., Kansai Electric Power Hosp...S622
- 4-9-29 Prediction accuracy of machine learning-based prediction of clinical outcomes after reverse shoulder arthroplasty...*Atsushi Urita, et al.*, Dept. of Orthop. Surg., Dokkyo Medical Univ...S623

- 4-9-30 Comparison of clinical outcome for frozen shoulder of manipulation under ultrasound-guided nerve root block and arthroscopic capsular release
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 *Noboru Oikawa, et al.*, Dept. of Orthop. Surg., Saitama Children's Medical Center ...S624
- 4-10-2 Three-year postoperative outcomes of angulated innominate osteotomy
 *Atsushi Suzuki, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S624
- 4-10-3 Is infantile bowing determined by environmental factors or genetic predispositions?
 *Yuko Sakamoto, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Nerima Hosp. ...S625
- 4-10-4 Knee arthroscopy in pediatric patients: A 16-year experience at a single center
 *Tetsuhiro Hagino, et al.*, Dept. of Orthop. Surg., Kofu National Hosp. ...S625
- 4-10-5 A cross-sectional study on the prevalence of accessory navicular and risk factors for symptomatic accessory navicular in children
 *Takahide Sasaki, et al.*, Dept. of Orthop. Surg., Wakayama Medical Univ. Kihoku Hosp. ...S626
- 4-10-6 A cross-sectional study on the prevalence of flat feet and related factors in children
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- 4-10-8 Factors involved in the subsidence of the talus component after total ankle arthroplasty
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- 4-10-12 The features of breakage case of the nitinol compression staple in foot and ankle surgery
 *Yasunari Ikuta, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S629

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- 4-10-13 Current status of acute treatment of hip fractures analyzed from FFN-J national hip fracture database: Report from FFN-J database committee
 *Narutaka Katoh, et al.*, Dept. of Traumatology, Fukushima Medical Univ. ...S630

- 4-10-14 Factors preventing surgery within 48 hours of injury for proximal femur fractures
.....*Kosuke Fukuzawa, et al.*, Dept. of Orthop. Surg., Aizawa Hosp.··S630
- 4-10-15 Trend and regional difference of cemented hemiarthroplasty in hip fracture: Epidemiological
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- 4-10-LS46-1 Is collared stem effective in reducing postoperative peri-prosthetic fractures in patients with
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Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,
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- 4-10-19 Functional recovery index for patients with hip fractures: Phase angle and IMAC
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- 4-10-20 Examination of risk factors for postoperative walking ability decline in patients with proximal
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.....*Shuhei Kawaguchi, et al.*, Dept. of Orthop. Surg., JR Hiroshima Hosp.··S634
- 4-10-21 Perioperative change of GNRI as an assessment of nutritional status in patients with proximal
femoral fracture*Daigo Morita, et al.*, Dept. of Orthop. Surg., Hamamatsu Medical Center··S635
- 4-10-22 Prognostic nutritional index (PNI) is predictor of postoperative walking ability after hip fracture
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- 4-10-23 Patients with femoral trochanteric fractures, those with a BMI of less than 20 have low PNI
.....*Yoshiharu Sugiyama, et al.*, Dept. of Orthop. Surg., Shizuoka City Shizuoka Hosp.··S636
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- 4-10-25 Therapeutic effect of BKP for bedridden patients with osteoporotic vertebral fracture in
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- 4-10-26 Prevalence of osteosarcopenia and utility of ultrasonographic measurement of quadriceps
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.....*Kohei Sato, et al.*, Dept. of Orthop. Surg., Tsuyama Chuo Hosp.··S637
- 4-10-27 The 80-50 problem lying in patients with proximal femoral fracture: Type of residence
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- 4-10-28 Increased complications of proximal femur fractures during the COVID-19 pandemic:
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.....*Hidetatsu Tanaka, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine...S638
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.....*Yasuhiko Takegami*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,
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- 4-10-30 Prospective study of the association between kinetics of D-dimmer and soluble fibrin and DVT in
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- 4-11-S70-1 Current status and issues of the medical accident investigation system for medical safety:
Survey by the Japan Orthopaedic Surgeons Association
.....*Hideaki Yoshida*, Dept. of Orthop. Surg., Fussa Hosp...S640
- 4-11-S70-2 Current situation and assignments of the medical accident investigation system to ensure
patient safety*Tetsuro Miyata*, Japan Medical Safety Research Organization...S640
- 4-11-S70-3 For the patient safety in the field of orthopaedic surgery, the fundamental significance of
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.....*Kanichiro Wada, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S641
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.....*Yasushi Kodama*, Shinsei Sogo Law Offices/Hitotsubashi Univ., Law School...S642

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- 4-11-1 Examination of frailty progression risk in rheumatoid arthritis patients based on five years of data:
A multicenter observational study (T-FLAG)
.....*Yoshifumi Ohashi, et al.*, Dept. of Orthop. Surg., Aichi Medical Univ...S643
- 4-11-2 Improving depressed mood is crucial for preventing rheumatic frailty: A multicenter observational
study -T-FLAG study-*Yoshifumi Ohashi, et al.*, Dept. of Orthop. Surg., Aichi Medical Univ...S643
- 4-11-3 Longitudinal analysis of locomotive syndrome progression and physical function decline in
rheumatoid arthritis patients*Hiroto Yamamoto, et al.*, Dept. of Orthop./Rheumatology,
Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,
Graduate School of Medicine, Nagoya Univ...S644
- 4-11-4 Changes in the rate and risk factor of sarcopenia in female patients with rheumatoid arthritis,
comparison with 16 years ago*Naoki Nakagawa, et al.*, Dept. of Orthop. Surg., Tottori Univ...S644
- 4-11-5 Oral frailty assessment and oral function enhancing gum training intervention for patients with
bone fragility fractures at a rehabilitation hospital
.....*Shotaro Tsuji, et al.*, Tsuji Geka Rehabilitation Hosp...S645
- 4-11-6 Is height loss associated with new onset of frailty and sarcopenia?: Cross-sectional analysis from
FESTA study*Masaaki Onishi, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ...S645

10 : 30 ~ 11 : 30		Free papers 86	Locomo: Spine	Moderators	K. Otani, R. Yamamoto
4-11-7	Cross-sectional study of the relationship between locomotive syndrome and spinopelvic sagittal alignment in the general population <i>Takaaki Nakano, et al.</i> , Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...	S646			
4-11-8	Effects of locomotion training-based outpatient rehabilitation on the global sagittal alignment in locomotive syndrome: A 2-year prospective cohort study <i>Takashi Yurube, et al.</i> , Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...	S646			
4-11-9	Prevalence of forward head posture and its association with spinal alignment using spinal mouse in school-age children: KID loco study <i>Makiko Onishi, et al.</i> , Dept. of Orthop. Surg., Wakayama Medical Univ....	S647			
4-11-10	Occurrence of radiographic lumbar spondylolisthesis in the general population: A 10-year follow-up of the ROAD study <i>Satoshi Arita, et al.</i> , Dept. of Orthop. Surg., Wakayama Medical Univ....	S647			
4-11-11	Impact of frailty on postoperative survival in the elderly patients with spinal metastases <i>Yutaro Kanda, et al.</i> , Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...	S648			
4-11-12	Effects of acute postoperative gait rehabilitation for gait disability in compression cervical myelopathy..... <i>Ryo Fukata, et al.</i> , Dept. of Rehabilitation Medicine, Chiba Univ. Hosp....	S648			
13 : 25 ~ 14 : 25		Free papers 87	Locomo: Lower limb	Moderators	Y. Kasahara, N. Taniguchi
4-11-13	Effect of locomotion training on early knee osteoarthritis: Qualitative evaluation by MRI T1rho mapping..... <i>Yuji Arai, et al.</i> , Dept. of Sports and Para-Sports Medicine, Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine...	S649			
4-11-14	Influence of knee osteoarthritis severity, knee pain, and depression on physical function: A cross-sectional study -LOHAS study- <i>Tatsuru Sonobe, et al.</i> , Dept. of Orthop. Surg., Fukushima Medical Univ....	S649			
4-11-15	Prevalence of knee osteoarthritis and associated factors: The 4th survey of the ROAD study, 2015 <i>Gaku Tanegashima, et al.</i> , Orthop. Surg., Sensory and Motor System Medicine, Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo...	S650			
4-11-16	Changes in anterior femoral torsion after THA affect toe angle and even PROMs during gait <i>Takahiro Inoue, et al.</i> , Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ....	S650			
4-11-17	Trends in radiographic morphology of the hip joint over a 10-year period in Japan: The ROAD study 2005-2015 <i>Yohei Tsukazaki, et al.</i> , Orthop. Surg., Sensory and Motor System Medicine, Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo...	S651			
4-11-18	Quadriceps muscle strength is associated with bone, joint, and muscle musculoskeletal disorders regardless of location: The ROAD study <i>Toshiko Iidaka, et al.</i> , Dept. of Preventive Medicine for Locomotive Organ Disorders, 22nd Century Medical and Research Center, Graduate School of Medicine, The Univ. of Tokyo...	S651			
14 : 40 ~ 15 : 40		Free papers 88	Locomo: Miscellaneous	Moderators	K. Maezawa, Y. Kanauchi
4-11-19	Can loco-check predict whether someone will be identified as needing care or assistance? <i>Koji Otani, et al.</i> , Dept. of Orthop. Surg., Fukushima Medical Univ....	S652			
4-11-20	Less loco if able to stand on one leg with open eyes for 15 seconds <i>Takashi Nagai, et al.</i> , Dept. of Rehabilitation Medicine, Showa Univ....	S652			
4-11-21	Single-leg stand-up test for motor function assessment in children with locomotive syndrome: KID loco study..... <i>Yusuke Kido, et al.</i> , Dept. of Orthop. Surg., Wakayama Medical Univ....	S653			

- 4-11-22 Is the phase angle useful in diagnosing locomotive syndrome?
 *Takafumi Mizuno, et al.*, Dept. of Orthop./Rheumatology,
 Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,
 Graduate School of Medicine, Nagoya Univ.···S653
- 4-11-23 Factors associated with locomotive syndrome in chronic pain patients: An exploratory research
 *Masataka Ueda, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ.···S654
- 4-11-24 Locomotive syndrome and carotid ultrasound: Perspectives from motor and vascular health
 *Taisuke Seki, et al.*, Dept. of Orthop. Surg., Aichi Medical Univ. Medical Center···S654

4th Day May 25 Room 12

8 : 00 ~ 9 : 00 Instructional lecture 65 Moderator T. Sakai

- 4-12-EL65 The pathophysiology, diagnosis, and treatment of osteonecrosis of the femoral head
 *Takuaki Yamamoto*, Dept. of Orthop. Surg., Fukuoka Univ.···S655

9 : 15 ~ 10 : 15 Instructional lecture 66 Moderator T. Saito

- 4-12-EL66 Seeing is believing for understating bone and inflammatory diseases
 *Masaru Ishii*, Dept. of Immunology and Cell Biology,
 Graduate School of Medicine, Osaka Univ.···S655

10 : 30 ~ 11 : 30 Instructional lecture 67 Moderator N. Saito

- 4-12-EL67 Osteoimmunology *Hiroshi Takayanagi*, Dept. of Immunology,
 Graduate School of Medicine and Faculty of Medicine, The Univ. of Tokyo···S656

13 : 25 ~ 14 : 25 Free papers 89 Spinal injury Moderators M. Nakano, K. Jimbo

- 4-12-1 Comparison of spinal cord injury and polytrauma in accidental falls and suicidal falls
 *Ryowa Mineo, et al.*, Dept. of Orthop. Surg., Hyogo Emergency Medical Center···S657
- 4-12-2 Characteristics and outcomes of elderly patients with cervical spinal cord injury without bone
 injury converted from conservative to surgical treatment
 *Noriaki Yokogawa, et al.*, Dept. of Innovative Community Medicine and Orthop. Surg.,
 Graduate School of Medical Sciences, Kanazawa Univ.···S657
- 4-12-3 Factors affecting home discharge of cervical spinal cord injury without radiographic evidence
 of trauma *Hideto Eguchi, et al.*, Dept. of Orthop. Surg., Yamanashi Prefectural Central Hosp.···S658
- 4-12-4 Standalone balloon kyphoplasty for reverse chance fractures associated with ankylosing
 spinal disorders *Ryunosuke Fukushi, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ.···S658
- 4-12-5 Development and utility study of a spinal compression fracture screening tool for elderly patients
 with acute low back pain *Tatsunori Ikemoto, et al.*, Dept. of Orthop. Surg., Aichi Medical Univ.···S659
- 4-12-6 Impact of bed rest duration on activities of daily living and outcomes in conservative treatment for
 osteoporotic vertebral fractures *Takuma Ogura, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medical and Dental Sciences, Kagoshima Univ.···S659

14 : 40 ~ 15 : 30 Free papers 90 Moderators H. Yasutake, A. Kimura
Perioperative complication: Spine/miscellaneous

- 4-12-7 The impact of osteoporosis on perioperative complications in patients undergoing surgical
 treatment for lumbar spinal canal stenosis *Tomoyuki Tanaka, et al.*, Dept. of Orthop. Surg.,
 Dokkyo Medical Univ. Saitama Medical Center···S660

- 4-12-8 Risk factors of percutaneous pedicle screw misplacement for single position lateral interbody fusion
.....*Takuya Imura, et al.*, Dept. of Orthop. Surg., Kamitsugai Hosp. ...S660
- 4-12-9 Comparison of nutritional status assessment scales to predict postoperative complications of
spinal fusion in the elderly
.....*Yukihito Ode, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,
Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S661
- 4-12-10 Age-related changes in bone density of the acromion and scapular spine
.....*Yuki Kurisu, et al.*, Dept. of Orthop. Surg., Yamaguchi Rosai Hosp. ...S661
- 4-12-11 Pathogenesis and diagnosis of fat embolism syndrome in cases of multiple trauma
.....*Junya Kondo, et al.*, Dept. of Orthop. Surg., Fukuyama City Hosp. ...S662

4th Day May 25 Room 13

8 : 00 ~ 9 : 00 Free papers 91 Hand & elbow: Nerve Moderators S. Yoshida, M. Hayashibara

- 4-13-1 The cases of carpal tunnel syndrome surgeries fluctuate with the seasons
.....*Yoshiaki Yamada, et al.*, Dept. of Orthop. Surg., Kagawa Univ. ...S663
- 4-13-2 Relation between aging and the patient-reported outcome measures in patients after surgery for
severe carpal tunnel syndrome*Shinji Tsuchida, et al.*, Dept. of Orthop.,
Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine ...S663
- 4-13-3 Predictors of improvement in postoperative objective findings after carpal tunnel release
.....*Shinsuke Morisaki, et al.*, Dept. of Orthop. Surg., Saiseikai Shiga Hosp. ...S664
- 4-13-4 Relation of pillar pain as a postoperative complication of carpal tunnel release at the site of
ligament transection*Yukiho Abe, et al.*, Dept. of Orthop. Surg., Shinshu Univ. ...S664
- 4-13-5 Dynamic analysis of periarticular nerves in the elbow joint using 3D MRI and image
construction system*Takenori Saeki, et al.*, Div. of Human Enhancement & Hand Surg.,
Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S665
- 4-13-6 Endoscopic-assisted infraclavicular approach for first rib resection in thoracic outlet syndrome
.....*Taku Suzuki, et al.*, Dept. of Orthop. Surg., Keio Univ. ...S665

**9 : 15 ~ 10 : 15 Free papers 92 Moderators K. Yamanaka, T. Sunagawa
Hand: Imaging evaluation**

- 4-13-7 Evaluation of MP joint alterations after first metacarpal extension and abduction osteotomy for
thumb CMC osteoarthritis*Shigeki Ishibashi, et al.*, Dept. of Orthop. Surg.,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S666
- 4-13-8 Kinematic changes of the thumb joints following extension-abduction osteotomy for the treatment
of trapeziometacarpal osteoarthritis
.....*Akira Kodama, et al.*, Dept. of Orthop. Surg., Hiroshima Univ. Hosp. ...S666
- 4-13-9 Characteristics and changes of thumb kinematics of each surgical technique in
trapeziometacarpal osteoarthritis*Yuichi Sumida, et al.*, Dept. of Orthop. Surg.,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S667
- 4-13-10 Development of 4D-CT method for analyzing the contact surface of the trapeziometacarpal joint
during tip pinch manipulation*Hidemasa Terao, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S667
- 4-13-11 Stress distribution analysis of MP joint before and after CM joint arthrodesis for CM
joint osteoarthritis*Yuki Matsui, et al.*, Dept. of Orthop. Surg., Kushiro Rosai Hosp. ...S668
- 4-13-12 Depressed deformity of the collateral ligament attachment area may appear in hand OA
.....*Kensho Suzuki, et al.*, Dept. of Orthop. Surg.,
Graduate School of Medical Sciences, Kanazawa Univ. ...S668

10 : 30 ~ 11 : 30	Free papers 93	Hand: Miscellaneous	Moderators S. Nagao, M. Nakasone
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- 4-13-13 Relationship between the occurrence of distal radius fractures, bone mineral density, and total muscle mass measured by bioelectrical impedance analysis
..... *Takahiro Sato, et al.*, Dept. of Orthop. Surg., Kita Akita City Hosp. ...S669
- 4-13-14 Therapeutic effect of hormone replacement therapy for hand osteoarthritis in menopause:
A 1 year follow up report *Hiromi Sasaki, et al.*, Dept. of Orthop. Surg.,
Graduate School of Medical and Dental Sciences, Kagoshima Univ. ...S669
- 4-13-15 Comparative study of the therapeutic effects of IL-23 p19 monoclonal antibodies in
psoriatic arthritis *Takahito Kojima, et al.*, Dept. of Orthop. Surg.,
Osaka Metropolitan Univ. Graduate School of Medicine ...S670
- 4-13-16 Prevalence of transthyretin amyloid deposition in patients with tenosynovitis of the hand
..... *Emi Makino, et al.*, Dept. of Orthop. Surg., Japanese Red Cross Hamamatsu Hosp. ...S670
- 4-13-17 Seven-year results after percutaneous needle fasciotomy of Dupuytren disease
..... *Yoshihiro Abe*, Dept. of Orthop. Surg., Chiba Rosai Hosp. ...S671
- 4-13-18 Is general anesthesia necessary for long-duration upper extremity surgery?: Safety and efficacy
of brachial plexus block with dexmedetomidine sedation
..... *Seishiro Matsumoto, et al.*, Dept. of Orthop. Surg., Osaka General Hosp. ...S671

13 : 25 ~ 14 : 25	Free papers 94	Basic reseach 2	Moderators J. Nishida, Y. Hamada
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- 4-13-19 Effect of a BMP receptor inhibitor on the progression of a rat model of rotator cuff
tear arthropathy *Tomohiro Iuchi, et al.*, Dept. of Orthop. Surg.,
Graduate School of Medical and Dental Sciences, Kagoshima Univ. ...S672
- 4-13-20 Comprehensive elbow joint morphology alterations due to osteochondritis dissecans of the
capitellum: Clinical implications
..... *Satoshi Miyamura, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ. ...S672
- 4-13-21 Micronized cellular adipose matrix (MCAM) promotes the therapeutic effect of an artificial nerve
conduit in peripheral nerve gap injury
..... *Seiji Sawai, et al.*, Dept. of Orthop. Surg., Jyujō Takeda Rehabilitation Hosp. ...S673
- 4-13-22 DNA methylation of BMP7 transcribed site as a possible biomarker for hand osteoarthritis
..... *Takashi Kuroiwa, et al.*, Dept. of Orthop. Surg., Fujita Health Univ. ...S673
- 4-13-23 Spatial transcriptomic analysis of MPNST and neurofibroma using the visium system
..... *Satoshi Kamio, et al.*, Div. of Cellular Signaling, National Cancer Center Research Institute ...S674
- 4-13-24 Development of CAR-t cell therapy for synovial sarcoma targeting ligands for activating receptor
of natural killer cell
..... *Tomohiro Miyazaki, et al.*, Dept. of Orthop. Surg., Niigata Univ. Medical & Dental Hosp. ...S674

14 : 40 ~ 15 : 40	Free papers 95	Basic reseach 3	Moderators H. Mera, K. Mishima
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- 4-13-25 Evaluation of potential antioxidant capacity of vitamin E-blended UHMWPE
..... *Takashi Nakamura, et al.*, Dept. of Orthop. Surg., Toho Univ. (Omori) ...S675
- 4-13-26 Essential anatomy of the popliteal artery in total knee arthroplasty: A cadaveric study
..... *Hideo Imai, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ. ...S675
- 4-13-27 Weight-bearing line of lower limb by an upright computed tomography and force plates: The
effect of coronal wedge floor *Hiroyuki Seki, et al.*, Dept. of Orthop. Surg., Tachikawa Hosp. ...S676
- 4-13-28 Influence of the plantar aponeurosis and the Achilles tendon on the windlass mechanism
..... *Takumi Kihara, et al.*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine ...S676
- 4-13-29 A multiple joint morphometric analysis of progressive collapsing foot deformity using statistical
shape modeling *Takuma Miyamoto, et al.*, Dept. of Orthop. Surg., Nara Medical Univ. ...S677

- 4-13-30 Effects of the lunar gravity on endochondral ossification of articular cartilage
 *Keita Nagira, et al.*, Dept. of Orthop. Surg., Tottori Univ. ...S677

4th Day May 25 E-poster Presentation Room

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

8 : 00 ~ 8 : 35	E-poster presentation	Tumor: Bone tumor (ROOM 1)	Moderator	N. Yamamoto
4-Po-1	Risk factors for postoperative complications and re-operation in metastatic spine surgery: JASA multicenter study	<i>Takaki Shimizu, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ. ...S678		
4-Po-2	Awareness of previous physicians for non-ossifying fibromas and fibrous cortical defects in referral documents	<i>Manabu Hoshi, et al.</i> , Dept. of Orthop. Surg., Osaka City General Hosp. ...S678		
4-Po-3	The pivotal role of tumor-associated macrophage-derived il-8 in osteosarcoma growth and metastasis	<i>Jiro Ichikawa, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medical Science, Univ. of Yamanashi ...S679		
4-Po-4	Psychological distress during treatment in AYA patients with bone and soft tissue tumors	<i>Shudai Muramatsu, et al.</i> , Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ. ...S679		
4-Po-5	Clinical characteristics and care practices of pediatric and AYA survivors with bone and soft tissue sarcoma	<i>Kunihiro Ikuta, et al.</i> , Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S680		
4-Po-6	Investigation of radiation dose in CT-guided needle biopsy using a hybrid surgical system (Artis Zeego)	<i>Hirotsuka Ogi, et al.</i> , Dept. of Orthop. Surg., Shizuoka City Shizuoka Hosp. ...S680		
4-Po-7	Efficiency of free vascularized fibula graft for extensive femoral defects after wide resection of malignant bone and soft tissue tumors	<i>Toshiyuki Takemori, et al.</i> , Dept. of Musculoskeletal Oncology and Rehabilitation, National Cancer Center Hosp. ...S681		

8 : 00 ~ 8 : 35	E-poster presentation	Locomo: Epidemiology/miscellaneous (ROOM 2)	Moderator	T. Hara
4-Po-8	The effect of progression of locomotive syndrome on worsening of frailty at 1 year in community-dwelling older adults ...	<i>Kazuaki Hamada, et al.</i> , Graduate School of Humanities and Social Sciences, Hiroshima Univ. ...S682		
4-Po-9	Impact of cognitive and physical functions on longitudinal quality of life in middle-aged and older adults	<i>Jun Ouchida, et al.</i> , Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S682		
4-Po-10	The effect of risk of sarcopenia on worsening locomotive syndrome at 1 year in community-dwelling older adults: A cohort study	<i>Kenta Hirohama, et al.</i> , Graduate School of Humanities and Social Sciences, Hiroshima Univ. ...S683		
4-Po-11	Determining factors that maintain physical function or increase frailty using the kihon checklist among community dwelling older adults	<i>Norio Imai, et al.</i> , Div. of Comprehensive Musculoskeletal Medicine, Niigata Univ. ...S683		
4-Po-12	Are wearable devices useful in preventing locomotive syndrome in the working generation?	<i>Akinobu Nishimura, et al.</i> , Dept. of Orthop. and Sports Medicine, Mie Univ. Graduate School of Medicine ...S684		
4-Po-13	Speed of sit-to-stand movement can predict the severity of locomotive syndrome	<i>Takashi Seya, et al.</i> , Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine ...S684		

- 4-Po-14 Validity of a modified version of the locomotive syndrome screening tool (L-treeS)
*Junji Nishimoto, et al.*, Graduate School of Humanities and Social Sciences, Hiroshima Univ.··S685

8 : 00 ~ 8 : 35 E-poster presentation (English) Hip & knee (ROOM 3) (G605) Moderator T. Kojima

- 4-Po-15 ACL graft elongation during downhill running over a 10-year follow-up
*Koji Nukuto, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S686
- 4-Po-16 Comparison of measurement accuracy between physicians and radiological technologists for
 evaluation of medial meniscal extrusion using radiography
*Shohei Murata, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine··S686
- 4-Po-17 Effect of altered knee joint loading pattern in gait biomechanics of total knee
 arthroplasty patient
*Sang Jin Lee, et al.*, Dept. of Orthop. Surg., Haeundae Paik Hosp., Inje Univ., Busan, Korea··S687
- 4-Po-18 Predicting periprosthetic joint infection susceptibility post-total joint arthroplasty using
 integrative genomic and microbiome machine learning models
*Prihantini Prihantini, et al.*, ML for BioMed Lab., Bandung Inst. of Tech., Bandung, Indonesia··S687
- 4-Po-19 Deep learning-driven prediction of implant loosening in total hip arthroplasty integrating
 preoperative imaging and surgical data
*Rifaldy Fajar, et al.*, Computational Biology and Medicine Laboratory,
 Univ. of L'Aquila, L'Aquila, Italy··S688
- 4-Po-20 Machine learning-driven identification of extracellular vesicle miRNAs to restore bone
 vascularization in osteonecrosis
*Naura Aunty, et al.*, Orthop. Surg. Research Center, Gowa General Hosp., Gowa, Indonesia··S688
- 4-Po-21 Impact of socioeconomic status on rehabilitation adherence and long-term outcomes in total hip
 arthroplasty*Sahnaz V. Putri, et al.*, Health Management Lab.,
 International Univ. Semen Indonesia, Gresik, Indonesia··S689

**8 : 00 ~ 8 : 35 E-poster presentation Moderator H. Iwakawa
 Shoulder, elbow & hand (ROOM 4)**

- 4-Po-22 Correlation analysis of the histological degeneration of supraspinatus tendon with clinical
 findings in arthroscopic rotator cuff repair for partial-thickness tear
*Takuya Tokunaga, et al.*, Dept. of Orthop. Surg., Kumamoto Univ. Hosp.··S690
- 4-Po-23 Pre- and post-operative scapular rotation changes in reverse shoulder arthroplasty
*Sei Fujii, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.··S690
- 4-Po-24 Location of osteochondritis dissecans of the humeral capitellum due to non-baseball sports
*Shuji Ito, et al.*, Dept. of Orthop., Shimane Univ.··S691
- 4-Po-25 Retrospective study of loosening in total elbow arthroplasty
*Shin Osawa, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S691
- 4-Po-26 Patient-specific factors associated with the persistence or recurrence of symptoms after
 conservative treatment for de Quervain tendinopathy
*Kenichi Asano, et al.*, Dept. of Orthop. Surg., JCHO Chukyo Hosp.··S692
- 4-Po-27 A prospective study on the ideal compression method of carpal compression test for carpal tunnel
 syndrome assuming telemedicine
*Yoshiaki Tomizuka, et al.*, Dept. of Orthop. Surg., Nihon Univ.··S692
- 4-Po-28 Preoperative ultrasound examination to confirm the recurrent branch of the median nerve in
 carpal tunnel release surgery*Shun Miyamoto, et al.*, Dept. of Orthop. Surg., Kagawa Univ.··S693

8 : 00 ~ 8 : 35	E-poster presentation	Moderator K. Suzuki
Spinal tumor/miscellaneous (ROOM 5)		

- 4-Po-29 Transition of intradiscal chondriase injection therapy and surgical therapy: Has the number of surgeries decreased due to chondriase infusion therapy?
 *Yujiro Kagami, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S694
- 4-Po-30 Multi-rod reinforcement reduces immediate neurological deterioration during ambulation after posterior decompression and instrumented fusion for thoracic OPLL
 *Toru Funayama, et al.*, Dept. of Orthop. Surg., Univ. of Tsukuba ...S694
- 4-Po-31 Association between sleep disturbance and neck pain: A 3-year longitudinal study after the great east Japan earthquake *Yutaka Yabe, et al.*, Dept. of Orthop. Surg., Sendai Nishitaga Hosp. ...S695
- 4-Po-32 Unmasking false negatives in intraoperative neurophysiological spinal cord monitoring: Multi-institutional practice patterns study
 *Masahito Takahashi, et al.*, Dept. of Orthop. Surg., Kyorin Univ. ...S695
- 4-Po-33 Utility of intratumoral flow void diameter in metastatic spinal tumors: A simple indicator for vascularity assessment in metastatic spinal tumors *Yuji Ishino, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ. ...S696
- 4-Po-34 The differences in associated factors according to the characteristics of complications following spinal metastasis surgery
 *Kazuto Miura, et al.*, Dept. of Spine and Spinal Cord Surg., Nagaoka Red Cross Hosp. ...S696
- 4-Po-35 Clinical outcomes of palliative surgery for spinal metastases with and without a history of radiation *Ichiro Kawamura, et al.*, Dept. of Orthop. Surg., Graduate School of Medical and Dental Sciences, Kagoshima Univ. ...S697

8 : 00 ~ 8 : 35	E-poster presentation Basic reseach 1 (ROOM 6)	Moderator T. Arai
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- 4-Po-36 Elucidating pathogenesis and identifying novel therapeutic targets in Ewing sarcoma: A comprehensive genomic analysis of slow-cycling cells utilizing next-generation sequencers
 *Yuta Nakamatsu, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S698
- 4-Po-37 PIEZO1 (mechanically sensitive ion channel) regulates the ossification of annulus fibrosis
 *Hisakazu Shitozawa, et al.*, Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ. ...S698
- 4-Po-38 Analysis of up-regulated microRNA in synovial fluid on osteonecrosis of the femoral head
 *Hideki Shozen, et al.*, Dept. of Orthop. Surg., Hiroshima Univ. Hosp. ...S699
- 4-Po-39 Mid-term outcomes of single-step ultra-purified alginate gel implantation in patients with knee chondral defects *Yoshiaki Hosokawa, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S699
- 4-Po-40 The biomechanical consequences of lateral femoral condyle lengthening in total knee arthroplasty: A biomechanics study using cadaver bones
 *Koki Abe, et al.*, Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine ...S700
- 4-Po-41 Longitudinal cohort study of knee osteoarthritis to explore the predictive biomarkers of the future progression *Tomohiro Onodera, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S700
- 4-Po-42 The depth of the dorsalis pedis artery between the first and second metatarsals: A cadaveric study
 *Taro Fujimaki, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Science, Univ. of Yamanashi ...S701

8 : 45 ~ 9 : 20	E-poster presentation	Tumor: Soft tissue tumor (ROOM 1)	Moderator	T. Akisue
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- 4-Po-43 Predictive model for distant metastasis in high-grade soft tissue sarcoma using serum LDH level and tumor size: Development and validation
..... *Tatsuro Saruga, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S702
- 4-Po-44 Needle biopsy with genetic test increase the number of unresected cases in nodular fasciitis
..... *Seiichi Matsumoto, et al.*, Dept. of Orthop. Surg., Cancer Institute Hosp....S702
- 4-Po-45 Dedifferentiation of atypical lipomatous tumor/well differentiated liposarcoma
..... *Masatake Matsuoka, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ....S703
- 4-Po-46 Clinical characteristics and prognostic factors of extraskeletal osteosarcoma: Analysis of the bone and soft tissue tumor registry
..... *Hiroya Kondo, et al.*, Dept. of Musculoskeletal Oncology and Rehabilitation,
National Cancer Center Hosp....S703
- 4-Po-47 Angiosarcoma in Japan: An analysis of the population-based cancer registry in Japan
..... *Toshiyuki Takemori, et al.*, Dept. of Musculoskeletal Oncology and Rehabilitation,
National Cancer Center Hosp....S704
- 4-Po-48 Factors affecting functional decline in limb-sparing surgery for soft-tissue sarcoma of the thigh
..... *Atsushi Tanaka, et al.*, Dept. of Orthop. Surg., Shinshu Univ....S704
- 4-Po-49 The prognostic value of SIRI and CD8+TILs in the prognosis of patients with localized undifferentiated pleomorphic sarcoma of soft tissue
..... *Hiroshi Kobayashi, et al.*, Dept. of Orthop. Surg.,
The Univ. of Tokyo Hosp., The Univ. of Tokyo...S705

8 : 45 ~ 9 : 20	E-poster presentation	Locomo: Spine/lower limb/miscellaneous (ROOM 2)	Moderator	E. Okumura
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- 4-Po-50 Locomotive syndrome and GAP score: A study using cutoff value in healthy adults: Yakumo study
..... *Yasuhiro Nagatani, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and
Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ....S706
- 4-Po-51 Effectiveness of surgical intervention in patients with lumbar spinal stenosis with locomotive syndrome stage 3
..... *Hideaki Matsumae, et al.*, Dept. of Orthop. Surg., Nishinara Central Hosp....S706
- 4-Po-52 Relationship between knee adduction moment and muscle co-contraction during level walking with healthy adult
..... *Tatsuya Mikami, et al.*, Dept. of Rehabilitation, Hakodate Orthop. Clinic...S707
- 4-Po-53 Effects of COP position feedback on asymmetry in knee extension moment during double-leg squatting after ACLR
..... *Tomoya Ishida, et al.*, Div. of Rehabilitation Science,
Dept. of Health Sciences, Faculty of Health Sciences, Hokkaido Univ....S707
- 4-Po-54 The impact of ankle osteoarthritis on the locomotive syndrome
..... *Kanu Shimokawa, et al.*, Dept. of Orthop. Surg.,
Graduate School of Medical Sciences, Kanazawa Univ....S708
- 4-Po-55 Evaluating the accuracy of machine learning models in predicting fracture risk for cancer patients at an osteoporosis clinic
..... *Hirotaka Koyanagi, et al.*, Dept. of Orthop. Surg., Saitama Cancer Center...S708
- 4-Po-56 Association between restricted outings and geriatric locomotive function scale score in the general elderly population during the COVID-19 pandemic
..... *Masashi Uehara, et al.*, Dept. of Orthop. Surg., Shinshu Univ....S709

8 : 45 ~ 9 : 20	E-poster presentation (English)	Moderator S. Soshi
Upper limb/spine/miscellaneous (ROOM 3) (G605)		

- 4-Po-57 Risk factors for tear progression in isolated supraspinatus tendon: A prospective study
..... *Jumpei Inoue, et al.*, Dept. of Orthop. Surg., Univ. of Pittsburgh, Pittsburgh, PA, USA...S710
- 4-Po-58 High-grade chondrosarcoma of the shoulder: Reconstruction with oncological reverse polarity prostheses
..... *Giakoumis V. Diakoumis, et al.*, Dept. of Orthop., NIMTS Hosp., Athens, Greece...S710
- 4-Po-59 Risk factors for median arcuate ligament overlap in adult spinal deformity patients
..... *Yasushi Iijima, et al.*, Dept. of Orthop. Surg., Seirei Sakura Citizen Hosp....S711
- 4-Po-60 Epiphyseal separations due to scurvy in children with severe spastic cerebral palsy
..... *Vikas Trivedi, et al.*, Dept. of Orthop. Surg.,
United Institute of Medical Sciences, Prayagraj, India...S711
- 4-Po-61 Progression of limb-length discrepancy and pelvic obliquity in pediatric idiopathic scoliosis patients *Vikas Trivedi, et al.*, Dept. of Orthop. Surg.,
United Institute of Medical Sciences, Prayagraj, India...S712
- 4-Po-62 Rotation fasciocutaneous flap for skin closure following postero-medial release (PMR) in neglected clubfeet: A new technique *Vikas Trivedi, et al.*, Dept. of Orthop. Surg.,
United Institute of Medical Sciences, Prayagraj, India...S712
- 4-Po-63 The efficacy of classical Indian yoga in the treatment of fibromyalgia: A randomized controlled trial
..... *Panna Mishra, et al.*, Dept. of Orthop. Surg., Saraswat Medical College, Kanpur, India...S713

8 : 45 ~ 9 : 20	E-poster presentation TKA/OA (ROOM 4) G607	Moderator H. Fujii
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- 4-Po-64 Changes in pelvic lateral tilt angle before and after total knee arthroplasty for coxitis knee
..... *Ryosuke Sugimoto, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and
Cutaneous Surg., Program in Integrated Medicine,
Graduate School of Medicine, Nagoya Univ....S714
- 4-Po-65 Factors contributing to medial and lateral soft tissue stiffness during total knee arthroplasty: Quantitative evaluation using a digital tensor *Natsuki Sugimura*, Kochi Medical School Hosp....S714
- 4-Po-66 Association between patellofemoral joint and clinical outcome in robotic assisted bi-cruciate stabilized total knee arthroplasty *Shine Tone, et al.*, Dept. of Musculoskeletal Surg.,
Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine...S715
- 4-Po-67 Intraoperative reference points on the proximal tibia in image-free robotic-assisted TKA should be determined by preoperative posterior tibial slope
..... *Yutaka Nakamura, et al.*, Dept. of Orthop. Surg., Gifu Univ. Hosp....S715
- 4-Po-68 Efficacy of oxidized regenerated cellulose powder in postoperative hemorrhage of total knee arthroplasty
..... *Manabu Hino, et al.*, Dept. of Orthop., Kyoto Interdisciplinary Institute Hosp....S716
- 4-Po-69 The prevalence of varicose veins and the effect of varicose vein treatment on knee pain in patients with knee osteoarthritis
..... *Yasuzumi Kishimoto, et al.*, Dept. of Orthop. Surg., Tohno Kousei Hosp....S716
- 4-Po-70 Electromyographic analysis of infrapatellar fat pad dynamics during walking in patients with knee osteoarthritis *Miharu Sugimoto, et al.*, Dept. of Biomec.,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ....S717

8 : 45 ~ 9 : 20	E-poster presentation	Moderator H. Mihara
Cervical spine & thoracic spine (ROOM 5)		

- 4-Po-71 Impact of bone calcification on cervical pedicle screw insertion using preoperative CT-based navigation *Masashi Uehara, et al.*, Dept. of Orthop. Surg., Shinshu Univ. ...S718
- 4-Po-72 Impact of injury level on the 10-second grip and release test and grip strength in cervical myelopathy diagnosis *Hiroshi Kobayashi, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ. ...S718
- 4-Po-73 Accuracy of cervical pedicle screw placement using patient-specific template guide system and risk factor analysis for screw perforation *Akira Fukushima, et al.*, Dept. of Orthop. Surg., Hokkaido Orthop. Memorial Hosp. ...S719
- 4-Po-74 The effect of preoperative cervical range of motion on postoperative loss of cervical lordosis and clinical outcomes after laminoplasty *Jun Wakasa, et al.*, Dept. of Orthop. Surg., Osaka Metropolitan Univ. Graduate School of Medicine ...S719
- 4-Po-75 Changing trends in traumatic spinal cord injury in an aging society: Epidemiology of 1152 cases over 15 years in Japan *Kazuya Yokota, et al.*, Dept. of Orthop. Surg., Kyushu Univ. Hosp. ...S720
- 4-Po-76 Association between neutrophil percentage to albumin ratio (NPAR) and delirium in patients with thoracolumbar injury: A single-center, retrospective cohort study *Kosuke Nitta, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Hosp. ...S720
- 4-Po-77 Enhancing safety in ultrasound-guided cervical nerve root block: Key practical considerations and C6/C7 transverse process anomaly evaluation *Aozora Kadono, et al.*, Dept. of Orthop. Surg., Shingu Municipal Medical Center ...S721

8 : 45 ~ 9 : 20	E-poster presentation	Basic reseach 2 (ROOM 6)	Moderator T. Uematsu
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- 4-Po-78 Surfaceome analysis of FMS-1, a malignant peripheral nerve sheath tumor-cell line *Iharu Ogawa, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ. ...S722
- 4-Po-79 Antioxidants promote muscle regeneration for hamstring strain *Fumitoshi Hatae, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp. ...S722
- 4-Po-80 Spinal cord injury pain associated with mitochondrial dysfunction and neurotoxicity in the thalamus *Ryunosuke Fukushi, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S723
- 4-Po-81 Doxorubicin irreversibly impairs skeletal muscle regeneration by inhibiting the absorption of necrotic tissue ... *Shinya Kondo, et al.*, Dept. of Orthop. Surg., National Defense Medical College ...S723
- 4-Po-82 Elucidation of the mechanisms of muscle atrophy and impaired regeneration in chronic kidney disease ... *Haruo Sasaki, et al.*, Dept. of Orthop. Surg., National Defense Medical College ...S724
- 4-Po-83 Artificial nerve wrapping for peripheral nerve injury in rat model *Nana Ito, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp. ...S724
- 4-Po-84 Transcriptional factor REST regulates axonal regeneration by JAK1/STAT3 pathway via GP130 *So Kawakita, et al.*, Dept. of Orthop., Juntendo Univ. ...S725

9 : 30 ~ 10 : 05	E-poster presentation	Moderator K. Inokuchi
Fracture: Spine/upper limb/ankle (ROOM 1)		

- 4-Po-85 The incidence of vertebral artery injury and symptomatic cerebral infarction in cervical spine dislocation and fracture *Masaru Hiyoshi, et al.*, Div. of Orthop. Surg., Dept. of Medicine of Sensory and Motor Organs, Faculty of Medicine, Univ. of Miyazaki ...S726
- 4-Po-86 Can CT values predict early reoperation after thoracolumbar transitional reconstruction for osteoporotic vertebral fractures?: Risk factors for early DJF *Kazuo Doi, et al.*, Dept. of Orthop. Surg., Dokkyo Medical Univ. ...S726

- 4-Po-87 Characters of the cases with shrinkage of the greater tuberosity after osteosynthesis for proximal humeral fractures
.....*Hiroshi Negi, et al.*, Dept. of Orthop. Surg., Hiroshima-Nishi Medical Center...S727
- 4-Po-88 Development of angle-adjustable finger plates and knuckle plates by thermoforming using a 3D printer*Hideo Takata*, Dept. of Orthop. Surg., Toyama Prefectural Rehabilitation Hosp. & Support Center for Children with Disabilities...S727
- 4-Po-89 Radiological feature of the carpometacarpal joint in hamate body fracture on anteroposterior hand X-ray image*Yusuke Kubo*, Dept. of Orthop. Surg., Iizuka Hosp....S728
- 4-Po-90 Treatment for traumatic instability or dislocation of the carpometacarpal joint of the thumb*Tsuyoshi Shirahata, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine...S728
- 4-Po-91 Validity and reliability of a new fluoroscopic incisura tangent method for the reduction of tibiofibular diastasis associated with ankle fractures
.....*Toshinari Mashu, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ....S729

9 : 30 ~ 10 : 05	E-poster presentation	Artificial intelligence (ROOM 2)	Moderator	R. Nakahara
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- 4-Po-92 Prediction of diagnosis of Chiari malformation or syringomyelia in adolescent 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....S730
- 4-Po-93 AI-based prediction of post-operative improvement in JOABPEQ in lumbar surgery patients
.....*Koki Hosozawa, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ....S730
- 4-Po-94 Automating preoperative planning for total hip arthroplasty using a deep learning and random forest fusion model*Takehiro Kaneoka, et al.*, Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine...S731
- 4-Po-95 Usefulness of an AI system for predicting falls in proximal femur fracture surgery cases
.....*Yoshiaki Nakajima, et al.*, Dept. of Orthop. Surg., Iwata City Hosp....S731
- 4-Po-96 Usefulness of a fall prediction AI system to evaluate in-hospital falls in proximal femur fracture surgery cases*Tasuku Kinoshita, et al.*, Dept. of Orthop. Surg., Iwata City Hosp....S732
- 4-Po-97 Deep learning for ultrasound diagnosis of chronic lateral ankle instability
.....*Tetsuya Yamamoto, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S732
- 4-Po-98 Predicting the clinical decision limits of locomotive syndrome from the screening questionnaire using machine learning*Yoichiro Yamaguchi, et al.*, Div. of Orthop. Surg., Dept. of Medicine of Sensory and Motor Organs, Faculty of Medicine, Univ. of Miyazaki...S733

9 : 30 ~ 10 : 05	E-poster presentation	Pain (ROOM 3)	Moderator	K. Kato
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- 4-Po-99 Relationship of central sensitization on the treatment course of patients with frozen shoulder
.....*Eiji Shimpuku, et al.*, Dept. of Orthop. Surg., Samukawa Hosp....S734
- 4-Po-100 Long-term results of a multidisciplinary program for patients with refractory chronic pain
.....*Shinsuke Inoue, et al.*, Multidisciplinary Pain Center, Aichi Medical Univ....S734
- 4-Po-101 Examination of the anti-inflammatory effect of preoperative intravenous injection of tranexamic acid in total hip arthroplasty*Fumihiko Mukasa, et al.*, Dept. of Orthop., Juntendo Univ....S735
- 4-Po-102 Short-term clinical outcome of cooled radiofrequency ablation in chronic knee pain osteoarthritis: Prospective cohort study
.....*Kensuke Hotta, et al.*, Dept. of Orthop. Surg., Amagi Central Hosp....S735
- 4-Po-103 Acute postoperative pain is an independent risk factor associated with chronic postoperative pain after total knee arthroplasty
.....*Takuya Iseki, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ....S736
- 4-Po-104 Ultrasound-guided sciatic nerve block in foot and ankle surgery
.....*Masaki Yugami, et al.*, Dept. of Orthop. Surg., Faculty of Life Sciences, Kumamoto Univ....S736

- 4-Po-105 Pain relief following arthroscopic rotator cuff repair: When can we achieve “almost no pain”?
 *Kazuki Ozaki, et al.*, Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ. ...S737

9 : 30 ~ 10 : 05	E-poster presentation	Knee: miscellaneous (ROOM 4)	Moderator A. Suzuki
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- 4-Po-106 The feature of meniscus extrusion in patients with deficiency of anterior cruciate ligament
 *Kohei Matsumura, et al.*, Dept. of Biomec.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S738
- 4-Po-107 Ultrasound findings associated with medial meniscus posterior root tear
 *Manase Nishimura, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medical Sciences, Kanazawa Univ. ...S738
- 4-Po-108 Relationship between change of bone marrow lesions score after high tibial osteotomy and
 patient reported outcome measures
 *Kosuke Kawamura*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine ...S739
- 4-Po-109 Comparative evaluation of tilt angles of bone and cartilage surfaces of tibial joint surfaces in
 non-OA knees using MRI *Daizo Saito, et al.*, Artificial Joint Center, Yamagata Saisei Hosp. ...S739
- 4-Po-110 Bony prominence adjacent to the pes anserinus is associated with medial plica in middle-aged
 populations with Kellgren-Lawrence grade 0
 *Shinnosuke Hada, et al.*, Dept. of Orthop., Juntendo Univ. ...S740
- 4-Po-111 Influence of lower limb alignment differences in hip-knee-ankle angle on gait function and
 patient-reported outcome measures in a general population
 *Ryoto Kura, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine ...S740
- 4-Po-112 Prediction of KSS 2011 improvement by valgus stress Xp assessment before UKA: From the
 viewpoint of coronal tibiofemoral subluxation ... *Shinya Kawahara, et al.*, Dept. of Orthop. Surg.,
 Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ. ...S741

9 : 30 ~ 10 : 05	E-poster presentation	Lumbar spine/osteoporosis (ROOM 5)	Moderator N. Wakao
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- 4-Po-113 Association between progression of paraspinal muscle fatty infiltration and lumbar spine
 degeneration: 11-year follow-up of the Minami Aizu study
 *Kenji Kobayashi, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ. ...S742
- 4-Po-114 Investigation of the impact of osteoporosis risk on the atrophy of the psoas major and paraspinal
 muscles: The Minami-Aizu study
 *Takeru Yokota, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ. ...S742
- 4-Po-115 Comparison of fusion in PLF using a novel interbody spacer with osteoconductive properties
 and PEEK or a titanium-coated PEEK cage
 *Tomohiko Hasegawa, et al.*, Dept. of Geriatric Musculoskeletal Health,
 Hamamatsu Univ. School of Medicine ...S743
- 4-Po-116 Usefulness of motor control test in the diagnosis of low back pain: Pilot study
 *Shuto Hamada, et al.*, Dept. of Orthop. Surg., Saiseikai Otaru Hosp. ...S743
- 4-Po-117 Evaluation of one-year incidence and risk factors for vertebral fractures after lumbar
 decompression surgery without fixation
 *Yudai Yano, et al.*, Dept. of Orthop. Surg., Nara Medical Univ. ...S744
- 4-Po-118 Differences between synflate balloon and vertebral body stenting for osteoporotic
 vertebral fracture *Yasuaki Iida, et al.*, Dept. of Orthop. Surg.,
 Japanese Red Cross Omori Hosp. ...S744
- 4-Po-119 The interrelationship between low back pain and spinal, pelvic, and lower limb alignment in
 osteoporotic patients *Ryo Fujita, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Hosp. ...S745

9 : 30 ~ 10 : 05	E-poster presentation	Basic research: Spine (ROOM 6)	Moderator B. Otsuki
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- 4-Po-120 Pathophysiological roles of chemokine RANTES and local inflammation in patients with ossification of the posterior longitudinal ligament in cervical spine
..... *Takafumi Yayama, et al.*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science...S746
- 4-Po-121 Narrow cervical laminectomy prevents postoperative C5 palsy by restricting elongation of anterior rootlets : An experimental study using rat model
..... *Atsushi Yokota, et al.*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ...S746
- 4-Po-122 Analysis of neuropathic pain and functional connectivity using resting-state functional MRI in postoperative patients with cervical myelopathy
..... *Takane Nakagawa, et al.*, Dept. of Orthop. Surg., Univ. of Tsukuba...S747
- 4-Po-123 Analyses on the therapeutic time window of muse cell transplantation for the treatment of acute spinal cord injury *Kotaro Sakashita, et al.*, Dept. of Orthop. Surg., Univ. of Tsukuba...S747
- 4-Po-124 Correlation analysis between IL-6 expression and OS-index in ossification of the posterior longitudinal ligament of the cervical spine
..... *Hideki Saito, et al.*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science...S748
- 4-Po-125 Effects of dual action simulation combined with transcranial magnetic stimulation on corticospinal excitation and finger motor function
..... *Kazumasa Konishi, et al.*, Dept. of Orthop. Surg., Kyorin Univ...S748
- 4-Po-126 Lysophosphatidylethanolamine promotes functional recovery in spinal cord injury by neuroprotection in acute phase
..... *Tetsuhiko Mimura, et al.*, Dept. of Orthop. Surg., Shinshu Univ...S749

10 : 15 ~ 10 : 50	E-poster presentation	Fracture: Hip/knee (ROOM 1)	Moderator T. Tsubaki
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- 4-Po-127 Development and validation of a prognostic scoring system for one-year mortality in older patients with hip fractures *Yusei Katsuyama, et al.*, Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine...S750
- 4-Po-128 The pelvic HU value is useful indicator for evaluating bone density before surgery for proximal femoral fractures *Go Sakai, et al.*, Dept. of Orthop. Surg., Komaki City Hosp...S750
- 4-Po-129 Risk factors for intraoperative fracture in bipolar hemiarthroplasty using the ALSA: Multicenter study
..... *Hiroaki Sawazono, et al.*, Dept. of Orthop. Surg., Izumu Regional Medical Center...S751
- 4-Po-130 Surgery within 48 hours of hospitalization and surgery within 48 hours of injury can restore the same level of walk
..... *Hiroataka Kawakami, et al.*, Dept. of Orthop. Surg., Sendai Medical Association Hosp...S751
- 4-Po-131 Prediction of walking ability six months after hip fracture surgery using sarcopenia index: Multicenter longitudinal study *Naoki Okubo, et al.*, Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine...S752
- 4-Po-132 Prognostic factors and scoring systems for 30-day mortality after hip fractures surgery in the elderly *Koichi Umeda, et al.*, Dept. of Orthop. Surg., Fukuchiyama City Hosp...S752
- 4-Po-133 Treatment experience with patellar fracture after total knee arthroplasty
..... *Kenta Kaihara, et al.*, Dept. of Orthop. Surg., Fukuchiyama City Hosp...S753

10 : 15 ~ 10 : 50	E-poster presentation	Computer assisted surgery (ROOM 2)	Moderator H. Kaneko
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- 4-Po-134 Postoperative clinical outcomes of MA and FA methods of Mako TKA in RCT
..... *Koji Yoshida, et al.*, Dept. of Orthop. Surg., Yamaguchi Prefectural Grand Medical Center...S754
- 4-Po-135 Early postoperative outcomes of TKA using Mako system: Comparison with navigation-assisted TKA *Yutoshi Osaki*, Dept. of Orthop. Surg., Teikyo Univ...S754

4-Po-136	Accuracy and problems of medial stabilizing technique in robotic-assisted total knee arthroplasty ······ <i>Daisuke Hamada, et al.</i> , Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School···S755
4-Po-137	Short-term postoperative clinical outcomes of robotic-arm-assisted THA: A comparative study with navigation-THA ······ <i>Shota Shigekiyo, et al.</i> , Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School···S755
4-Po-138	Accuracy of acetabular cup placement in DAA-THA using an AR navigation “pin-less” system ······ <i>Tetsuya Kimura, et al.</i> , Naka Orthop. Clinic, Kyoto Kitano Main Institution···S756
4-Po-139	Differences in cup placement accuracy between the anterior and posterior approaches in lateral decubitus THA using MAKO and CT navigation ······ <i>Ryo Hidaka, et al.</i> , Dept. of Orthop. Surg., Teikyo Univ.···S756
4-Po-140	Smartphone application for cemented stem insertion in total hip arthroplasty ······ <i>Ryohei Takada</i> , Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Institute of Science Tokyo···S757

10 : 15 ~ 10 : 50	E-poster presentation Hip (ROOM 3)	Moderator M. Goto
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4-Po-141	The influence of obesity on acetabular cup positioning using AR hip navigation system in total hip arthroplasty ······ <i>Yusuke Uehara, et al.</i> , Dept. of Orthop. Surg., Faculty of Life Sciences, Kumamoto Univ.···S758
4-Po-142	Has the use of the dual mobility cup expanded the indications for total hip arthroplasty in elderly patients? ······ <i>Hiroharu Oki, et al.</i> , Dept. of Orthop. Surg., Yamagata Univ.···S758
4-Po-143	Evaluation of lower limb alignment before and after total hip arthroplasty ······ <i>Hiroyuki Morita, et al.</i> , Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ.···S759
4-Po-144	Postoperative radiographic evaluation of cemented stems and comparison with femoral stress distribution using thermoelastic stress analysis ······ <i>Shota Yasunaga, et al.</i> , Dept. of Orthop. Surg., Univ. of Tsukuba Hosp.···S759
4-Po-145	Acetabular retroversion following rotational acetabular osteotomy is affected by the ischial osteotomy angle ······ <i>Kazuki Yamada, et al.</i> , Dept. of Medical Materials for Musculoskeletal Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ.···S760
4-Po-146	Long-term course of borderline dysplasia : Risk factors for the osteoarthritis and joint survival on the unilateral RAO non-operated side ······ <i>Ayano Amagami, et al.</i> , Dept. of Orthop. Surg., The Jikei Univ. School of Medicine···S760
4-Po-147	Evaluation of intra-articular structural changes in osteoarthritis of the hip following PRP injection therapy: An MRI-based study ······ <i>Yusuke Okanoue, et al.</i> , Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ.···S761

10 : 15 ~ 10 : 50	E-poster presentation Foot & ankle (ROOM 4)	Moderator Y. Suda
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4-Po-148	Patient satisfaction assessment following transfibular approach ankle arthrodesis based on patient-reported outcome measures ······ <i>Hirotaka Fukushima, et al.</i> , Dept. of Orthop. Surg., The Jikei Univ. School of Medicine···S762
4-Po-149	The effect of ankle osteoarthritis stage on lower limb kinematics and kinetics during walking ······ <i>Shunsuke Nakamura, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medical and Dental Sciences, Kagoshima Univ.···S762
4-Po-150	Relationship between lower extremity alignment changes and ankle pain following total knee arthroplasty ······ <i>Tatsuya Sakai, et al.</i> , Dept. of Orthop. Surg., Saga Univ.···S763

- 4-Po-151 A modified combined tibialis anterior and posterior tendon transfer for paralytic equinovarus foot in pediatric patients
.....*Hiroshi Kaneko, et al.*, Dept. of Orthop. Surg., Aichi Children's Health and Medical Center...S763
- 4-Po-152 Relationship between ankle osteoarthritis and lower leg muscles by weight-bearing simulation CT*Norihiro Tsujimoto, et al.*, Dept. of Orthop. Surg., Nara Medical Univ...S764
- 4-Po-153 The relationship between calcaneofibular ligament injury and subtalar joint alignment with progression of ankle osteoarthritis*Satoru Sakurai, et al.*, Dept. of Orthop. Surg.,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S764
- 4-Po-154 Subchondral bone density comparison in the subtalar joint post-TAA vs. AA: A finite element analysis study*Kento Shimano, et al.*, Dept. of Orthop. Surg., Kagoshima Univ. Hosp...S765

**10 : 15 ~ 10 : 50 E-poster presentation
Spinal deformity/spinal alignment (ROOM 5)**

Moderator A. Matsumura

- 4-Po-155 In Lenke type 1 and 2 curves scoliosis, achieving the upper thoracic kyphosis is important for postoperative cervical alignment
.....*Kanji Mori, et al.*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science...S766
- 4-Po-156 The characteristics of waistline asymmetry in patients with idiopathic scoliosis patients
.....*Tomohiro Banno, et al.*, Div. of Surg. Care, Morimachi, Hamamatsu Univ. School of Med...S766
- 4-Po-157 Influence of pelvic incidence on posterior correction surgery for Lenke 1 adolescent idiopathic scoliosis: Analysis in surgery using anatomical rods
.....*Katsuhisa Yamada, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S767
- 4-Po-158 Reference threshold of preoperative spinal alignment for deciding the necessity of pelvic foundation or long fusion in adult spine surgery
.....*Yoshinori Ishikawa, et al.*, Dept. of Orthop. Surg., Akita Kousei Medical Center...S767
- 4-Po-159 Frailty accelerates spinal sagittal malalignment in patients with rheumatoid arthritis
.....*Koichi Murata, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ...S768
- 4-Po-160 Characteristics of chronic pain and spinal alignment in resident health examinations of middle-aged and elderly residents in the community
.....*Ippei Yamauchi, et al.*, Dept. of Orthop./Rheumatology,
Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,
Graduate School of Medicine, Nagoya Univ...S768
- 4-Po-161 Prognostic prediction of neck drop syndrome using cervical prone position X-rays
.....*Ryusuke Hasegawa, et al.*, Dept. of Orthop. Surg., Tokyo Medical Univ...S769

**10 : 15 ~ 10 : 50 E-poster presentation
Basic research: Biomechanics (ROOM 6)**

Moderator M. Hakozaiki

- 4-Po-162 Thread depth affects the accuracy of the screw pull-out strength predicted by the insertion torque*Shinji Imade, et al.*, Dept. of Orthop., Shimane Univ...S770
- 4-Po-163 Anti-tumor effect of LED light on chordoma*Shunsuke Tamaki, et al.*, Dept. of Orthop.,
Institute of Biomedical Sciences, Tokushima Univ. Graduate School...S770
- 4-Po-164 Toward understanding the pathophysiology of ulnar impaction syndrome: Investigation of the impact of dynamic factors using fresh-frozen cadavers
.....*Kinshiro Nabeshima, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S771
- 4-Po-165 Temporal bone volume changes in the humeral head subchondral bone in the rat rotator cuff tear arthropathy model*Takayuki Ide, et al.*, Dept. of Orthop. Surg.,
Graduate School of Medical and Dental Sciences, Kagoshima Univ...S771
- 4-Po-166 Augmentation of rotator cuff repair with pressed biceps tendon enhances attachment strength in a rat model*Fumitoshi Hatae, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp...S772

- 4-Po-167 Difference between the thumb motions in carpal tunnel syndrome and trapeziometacarpal osteoarthritis
.....*Kentaro Tsuji, et al.*, Dept. of Orthop. Surg., Toho Univ. (Omori)··S772
- 4-Po-168 Evaluation of lunate bone density and strength using quantitative computed tomography and finite element analysis
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- 4-Po-172 Efficacy of remnant preservation in anterior cruciate ligament reconstruction and its effects on cyclops lesions and postoperative knee instability*Kyohei Ota, et al.*, Dept. of Orthop. Surg., Nagoya City Univ., Graduate School of Medical Sciences··S775
- 4-Po-173 Influence of concomitant medial meniscus ramp lesions on postoperative clinical outcomes following anterior cruciate ligament reconstruction
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- 4-Po-181 Treatment results for inflammatory lower back pain of spondyloarthritis
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- 4-Po-185 Features of palmar dislocation type in distal radius epiphyseal injury
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- 4-Po-190 Characterization of PD-1/PD-L1 immune checkpoint expression in the pathogenesis of musculoskeletal Langerhans cell histiocytosis: A retrospective study
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- DP-825 Comparative outcomes of dorsal oblique metatarsal osteotomy versus arthrodesis for grade 3 hallux rigidus: A 15-year retrospective study *Jia Ying Lee, et al.*, Singapore General Hosp., Dept. of Orthop. Surg., Singapore, Singapore...S1217
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- DP-829 Osteolytic lesions of the acetabulum: Surgical and radiotherapeutic management *Giakoumis V. Diakoumis, et al.*, Dept. of Orthop., NIMTS Hosp., Athens, Greece...S1219
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- DP-832 Application of zero-profile spacer combined with posterior vertebral expansive decompression in ACDF surgery for cervical spondylotic myelopathy with focal OPLL *Li Zhang, et al.*, Dept. of NeuroSurg., Affiliated Zhangjiagang Hosp., Soochow Univ., Suzhou, China...S1221
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- DP-835 The status of blood transfusion in spinal deformity patients over the past ten years *Yasushi Iijima, et al.*, Dept. of Orthop. Surg., Seirei Sakura Citizen Hosp...S1222
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- DP-837 Clinical results of percutaneous posterior lumbar pelvic fusion for lower lumbar discitis *Yuji Kasukawa, et al.*, Dept. of Rehabilitation Medicine, Akita Univ. Hosp...S1223
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- DP-839 Short segment lumbar surgery improves health-related quality of life without limiting activities of daily living: A retrospective study *Ryota Kimura, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine...S1224
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- DP-841 The role of methotrexate monotherapy along with high dose vitamin D in newly diagnosed rheumatoid arthritis
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- DP-842 An analysis of tumor related skin temperature differences in malignant soft tissue tumors
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- DP-843 Novel filament-free 3D printable PEEK-HA-Mg2SiO4 composite material for spine implants
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- DP-844 Osseointegration of an innovative functionally gradient biomimetic scaffold based on Voronoi-tessellation for the design of orthopaedic implants
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- DP-852 Canceled
- DP-853 The clinical outcome of upadacitinib for patients with rheumatoid arthritis
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