

POSTER LIST & ALLOCATION



SESSIONS: INCLUDING SNACKS & DRINKS

MON 16 June @ 17:00 | WED 18 June @ 17:00

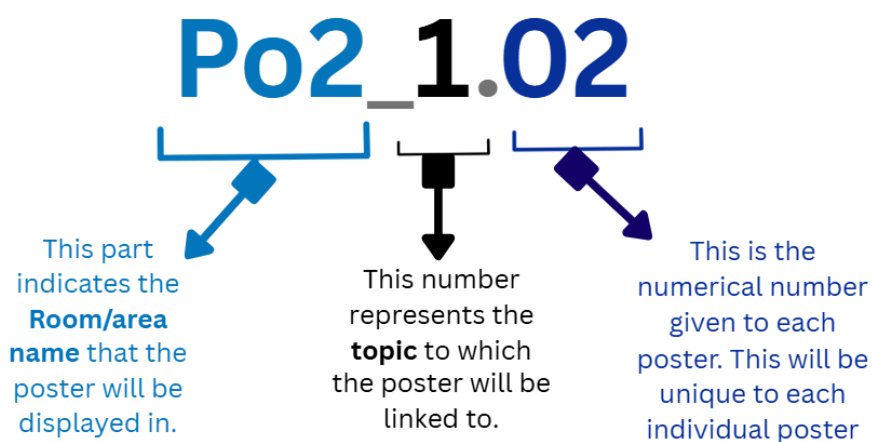
There is no specific time allocated to each poster presentation. We encourage presenters to be available during both sessions.

- Poster sizes- **A0 Portrait** style (no landscape) – max 841 mm wide by 1189 mm tall.
- Please **bring along your printed poster** as the congress does not provide printing services.
- Please check the lists below for your poster number. Your poster location will be identified by that number.
- Posters will be arranged numerically and organized by topic. A poster map will be displayed next to the poster area and be available at the registration desk.
- We encourage presenters to set up their poster on **Sunday, 15th June 2025** between **17:00 and 19:00**. The poster must be poster mounted **no later than 13:15 Monday 16th June 2025**.
- It will be the presenters responsibility to hang the respective posters on the space assigned according to the given number. Help will be available on site for direction.
- Thumbtacks will be provided for you to fix your poster.
- Posters must be removed by **Thursday 13:00**. Posters which are not taken down by this time will be removed by the conference organizers and destroyed.

POSTERS

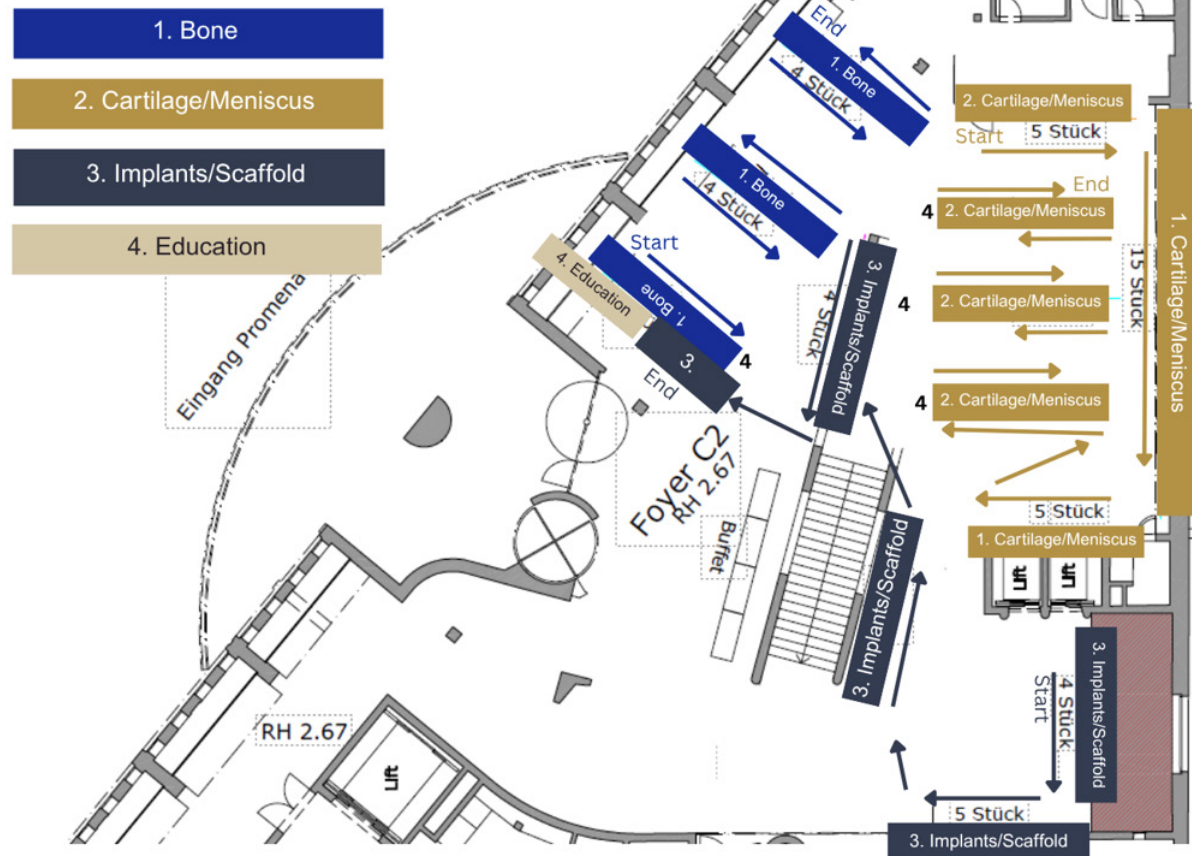
Poster Sessions

How to read the Poster number allocated to your poster.



Poster Room numbers:	Topic Number per Room:	EXAMPLES:
Po1 - C2 Aspen Foyer	1. Bone 2. Cartilage/Meniscus 3. Implants/Scaffold 4. Education	Po1_1.13
Po2 - C 1 Sanada	1. 3D Modeling 2. Biomaterials 3. Infection 4. Injury & Healing 5. Medical Devices 6. Stem Cells 7. Tendon/Ligament 8. Tissue Engineering 9. Wearables	Po2_3.07 Po2_8.16
Po3 - Foyer A2	1. Spine	Po3_1.67
Po4 - A Studio	2. Artificial Intelligence 3. Biomechanics/Simulation 4. Other	P04_1.06
Po5 - A Forum	1. Clinical 2. Preclinical	Po5_1.25
	1. CAOS Regular posters	Po6_1.20

Foyer Aspen Po1



Poster : Foyer Aspen

Po1

1 Bone

- Po1_1.03 Effect of interfragmentary stimuli on repair tissue formation in a bone healing model with monotonically increasing interfragmentary strain.
Jan Barcik, Manuela Ernst, Tim Buchholz, Caroline Constant, Karen Mys, Devakara Epari, Stephan Zeiter, Boyko Gueorguiev, Markus Windolf
- Po1_1.05 Optimizing RNA In Situ Hybridization for Gene Expression Mapping in Mouse Fracture Healing.

Claire Chabot, Maria Schröder, Nico Giger, Claudia Siverino, Esther Wehrle

- Po1_1.08 Characterization of the Osteocyte Lacunocanalicular Network in Subchondral Bone of Healthy Mice.
Valentine Gaillard, Albano Malerba, Gaëtan Lefevre, Stéphane Blouin, G. Van Lenthe, Richard Weinkamer, Markus Hartmann, Davide Ruffoni
- Po1_1.09 Cortistatin prevents glucocorticoid-associated osteonecrosis of the femoral head via the GHSR1a/Akt pathway.
Yuan Gao, Yuhua Li, Yunpeng Zhao
- Po1_1.11 Does Freeze-Thawing Change the Metabolomic Active of Platelet-Rich Plasma?
Ozan Kaplan, Bilge Fidan, Emine Koc, Ilayda Demirdis, Mustafa Çelebier, Feza Korkusuz
- Po1_1.12 Role of the β 2-Adrenoceptor in Chondrocytes for Long Bone Growth and Fracture Healing in Mice.
Melanie Kuhn, Melanie Haffner-Luntzer, Sandra Dieterich, Anita Ignatius, Stefan Reber, Miriam Tschaffon-Müller
- Po1_1.15 Regulating stem cell growth factor- β fine-tuned balance of osteogenesis and adipogenesis of mesenchymal stem cells endows Statins with new anti-osteonecrosis effect.
Chengjie Lian, Lei Liu, Fangzhou Fan
- Po1_1.17 Differential Pain Resolution Behaviors Following Fracture in Rodents Based on Sex and Fracture Stability.
Jacob Matityahu, Molly Czachor, Jonny Layne, Dustin Snapper, Dane Lind, Charles Lam, Matthieu Huard, Kazuhito Morioka, Allan Basbaum, Jarret Weinrich, Chelsea Bahney
- Po1_1.18 Gambogic Amide induces Heterotopic Ossification expansion after Soft Tissue Trauma modulating TrkA+ neurons.
Stefano Negri, Masnsen Cherief, Qizhi Qin, Chase Pagani, Benjamin Levi, Aaron James
- Po1_1.19 The Biofiligree® concept: innovative approach to bone fracture healing.
Olga Noronha, Rafael Coelho, Antonio Ramos, Jose Simoes, Jose Noronha
- Po1_1.20 Understanding the behaviour of macrophages and vascular cells on shifted laser surface textured titanium discs for implant integration.
Girish Pattappa, Theresia Stich, Tomas Křenek, Tomáš Kovářík, Denitsa Docheva
- Po1_1.21 The Role of Mineral Heterogeneity, Trabecular Orientation, and Collagen Fibers Arrangement on Tissue-Level Trabecular Bone Mechanics.
Edoardo Pedrinazzi, Stéphane Blouin, Alexandre Hego, Aude Simar, Markus Hartmann, Davide Ruffoni

- Po1_1.22 Bridging Biology and Engineering: Pre-Vascularized Grafts for Craniofacial Therapy.
Idan Redenski, Reema Fadoul, Shadi Daoud, Samer Srouji
- Po1_1.23 ATR inhibition reverses doxorubicin resistance in human osteosarcoma cells by increasing DNA damage response.
Chongmin Ren, Francis Hornicek, Bin Yue, Zhenfeng Duan
- Po1_1.24 Regeneration of Critical-Size Bone Defects in a Rat Model Using Demineralized Bone Matrix and Low-Intensity Pulsed Ultrasound.
Ieva Šimoliūnė, Mantas Liudvinaitis, Milda Alksnė, Povilas Daugėla, Mindaugas Pranskūnas, Pedro Gomes, Egidijus Šimoliūnas
- Po1_1.25 Adaptation of the mouse tibia to fatigue under weekly pathological in vivo axial loading.
Claudia Siverino, Claire Acevedo, Vincent Stadelmann
- Po1_1.29 Development of a Prototype Model for Lateral Split-Depressed Tibial Plateau for Bench Testing and Fixation Studies.
Antzela Tzagiollari, Paul Dorrell, Gerard Insley, Thomas Russell
- Po1_1.32 Hepatokine AGP2 Mediates Physical Exercise-Induced Bone Augmentation through Liver-Bone Signaling Communication.
Zhenglin Zhu, Wei Huang, Di Chen
- Po1_1.34 Single-cell and spatial transcriptomics reveal cellular features and crosstalk between synovium and cartilage in human haemophilic arthritis.
Jiong Jiong Guo, Yufan Qian, Huilin Yang

2 Cartilage / Meniscus

- Po1_2.03 The molecular path of PRP formulations on osteoarthritic chondrocytes presenting a tight therapeutic window.
Özge Boyacıoğlu, Bilge Başak Fidan, Ozan Kaplan, Mustafa Çelebier, Feza Korkusuz, Petek Korkusuz
- Po1_2.04 Chondrocyte mitochondrial dysfunction as a target for osteoarthritis therapy: identification of a new molecule.
Lucie Danet, Romain Guiho, Anais Defois-Le Menn, Nina Bon, Boris Halgand, Joëlle Veziers, Denis Waast, Antoine Hamel, Jérôme Guicheux, Marie-Astrid Boutet, Claire Vinatier
- Po1_2.08 Novel approach to identify disease severity marker candidates in osteoarthritis patients based on gene expression changes in human chondral plugs and their association with electromechanical properties as a proxy for cartilage pathology.
Jürg Gasser, Joanna Mitchelmore, Yufei Li, Ivan Osinnii, Agnese Beretta-Piccoli, Lukas Hils, Ines Honorio, Janine Kuch, Angelika Meyer, Stefan

Utzinger, Michelle Schäublin, Alain Schilb, Valentina Taddini, Edi Schuepbach, Rachel Kettle, Franziska Saxer, Peter Richards, Albrecht Heitner, Jochen Paul, Carsten Jacobi

- Po1_2.09 Characterisation of Cultured Human Chondrocytes Conditioned Under Low Oxygen.
Benjamin Gompels, Hayat Muhammad, Rawiya Al Hosni, Ilias Epanomeritakis, Alexandra MacMillan, Wasim Khan, Stephen McDonnell, Mark Birch, Andrew McCaskie
- Po1_2.10 Chemical Induction and Regulation of Functional Cartilage Repair.
Fengjin Guo, Nana Geng, Mengtian Fan
- Po1_2.11 POSTN potentiates chondrocyte hypertrophy by promoting RUNX2 in osteoarthritis.
Ruiyang Jiang, DongQuan Shi
- Po1_2.12 Outcomes of Meniscal Allograft Transplants: The Oswestry Experience.
Rakan Kabariti, Peter Davies, Alexander Glover, Paul Jermin, Gallacher Peter
- Po1_2.13 Learning Curve for Meniscal Allograft Transplants.
Rakan Kabariti, Peter Davies, Peter Gallacher
- Po1_2.14 Meniscal Allograft Transplants: Oversizing the grafts in the AP dimension Increases Post-operative Complications but Does Not Affect Failure Rates.
Rakan Kabariti, Peter Davies, Peter Gallacher
- Po1_2.15 The choice of fixation device or the number of meniscus sutures used does not affect the post-operative complication rates nor patient reported outcomes following Meniscal Allograft Transplants.
Rakan Kabariti, Peter Davies, Alexander Glover, Paul Jermin, Peter Gallacher
- Po1_2.16 Allograft Donor Age and Gender Does not Influence Post-operative Outcomes in Meniscal Allograft Transplant Surgery.
Rakan Kabariti, Peter Davies, Peter Gallacher
- Po1_2.17 MRI-Based Assessment of Donor Site Healing Following OATS: Evidence of Good Cartilage Regeneration At a mean Follow-up of 1.9 Years.
Rakan Kabariti, Nicolas Dziadulewicz, James Richardson, Peter Gallacher, Paul Jermin
- Po1_2.21 Causal relationship between hallux valgus, flat feet, and osteoarthritis: a bi-directional two-sample mendelian randomized study.
Chengjie Lian, Fangzhou Fan, Lei Liu
- Po1_2.22 Serum biochemical markers and rheumatoid arthritis: Insights from observational study and Mendelian randomization analysis.
Chengjie Lian, Lei Liu

- Po1_2.23 A Multi-Omics Journey into Synovial Fluid: Advancing Molecular Classification of Knee Osteoarthritis.
Xiyu Liu, Zhongyang Lv, [Dongquan Shi](#)
- Po1_2.24 High osmolality mediates the Nfat5-Gas1-SHH axis to delay osteoarthritis.
[Yuan Liu](#)
- Po1_2.25 Do Macrophages have a Dual Role in Cartilage Repair: Priming then Enhancing Chondrogenesis?
Alexandra Macmillan, Hayat Muhammad, [Rawiya Al Hosni](#), Mohammed Alkhayref, Ilias Epanomeritakis, Benjamin Gompels, Steven McDonnell, Wasim Khan, Mark Birch, Andrew McCaskie
- Po1_2.26 Human osteochondral cylinders as a model to investigate degenerative processes in osteoarthritis.
[Giulio Gatto](#), Moritz Laucks, Zsuzsa Jenei-Lanzl, Frank Zaucke
- Po1_2.27 Impact of Triamcinolone Acetonide on Fibroblast-Like Synoviocytes: Insights into Viability, Biomechanical Fingerprints, and Mechanosensitivity.
[Anna Mücke](#), Marina Danalache, Rosa Riester
- Po1_2.29 Clinical outcomes following medial meniscus posterior root repairs: A minimum of 5-year follow-up study.
[Yuki Okazaki](#), Takayuki Furumatsu, Kazuhisa Sugiu, Yusuke Kamatsuki, Yusuke Yokoyama, Masanori Tamura, Koki Kawada, Tsubasa Hasegawa, Toshifumi Ozaki
- Po1_2.30 Fiber-Reinforced Self-Healing Gels for Meniscus Tissue Engineering.
Selma Padilla Padilla, [Indra Apsite](#)
- Po1_2.31 Nano mineral crystals perturbation from osteochondral interface initiates osteoarthritis.
Rong Ren, Songsong Zhu, [Nan Jiang](#)
- Po1_2.32 Coaxial 3D Printing: synergistic approach of natural and synthetic biomaterials for knee meniscus replacement.
[Francisco Rodrigues](#), Ana Oliveira, João Costa
- Po1_2.33 Impact of glucose and oxygen on osteochondral-synovium co-culture.
[Fateme Safari](#), Jovana Zvicer, Sibylle Grad, Martin Stoddart, Zhen Li
- Po1_2.34 α -MSH modulates senescent and metabolic state of human osteoarthritic and non-osteoarthritic chondrocytes.
Nicole Schäfer, Marianne Ehrnsperger, Brian Johnstone, Markus Böhm, [Susanne Grässel](#)
- Po1_2.35 An ex vivo calcified tissue explant model to study the response of cells in the cartilage-bone interface to osteoarthritic factors.
[Andrea Schwab](#), Nicole Kops, Eric Farrell, Gerjo Van Osch

- Po1_2.36 Differentially Expressed Genes and Pathways between Degenerated and Healthier Human Articular Cartilage.
Anja Stirnimann, Fabian Ille
- Po1_2.37 Modelling meniscal degeneration: a 3d culture platform for studying inflammatory and matrix responses.
Graciosa Teixeira, Jessica Beyermann, Maria Ahrens, Jonas Schwer, Michael Gross, Luisa de Roy, Anita Ignatius, Andreas Seitz
- Po1_2.38 Dynamic loading enhances collagen-rich matrix formation in pet scaffolds for meniscal replacement.
Graciosa Teixeira, Luisa de Roy, Anna-Lotta Feldmeier, Anita Ignatius, Carsten Linti, Andreas Seitz
- Po1_2.39 Injectable Bilayer Elastin-Like Recombinamer Bioactive Hydrogels with Differential Layer Degradation Rates for Osteochondral Regeneration in an In Vivo Rabbit Model.
Desiré Venegas-Bustos, Gonzalo Martínez, Sonia Martínez-Páramo, Israel González de Torre, A. Gato, A.J. Álvarez-Barcia, A. Vega-Castrillo, Mercedes Alberca, J.C. Rodríguez-Cabello
- Po1_2.41 Uncovering the Impact of Irrigation Fluid Acidity on Articular Cartilage in an ex Vivo Injury Model.
Svenja Wacker, Fatemeh Safari, Zhen Li, Gian Salzmann, Martin Stoddart, Sibylle Grad, Hagen Schmal, Eva Kubosch
- Po1_2.42 Multi-omics reveals cellular interactions in knee osteoarthritis.
Zheng Wang
- Po1_2.44 Mechanism exploration of Notoginsenoside R1 delaying osteoarthritis.
Nuo Xu
- Po1_2.47 Hnnpk Protects Against Osteoarthritis through Targeting WWC1 mRNA and Inhibiting Hippo Signaling Pathway.
Shun Zhang, Peiqiang Su
- Po1_2.49 Magnetic Nanoemulsions for Intra-Articular Therapy: Preclinical In Vitro and In Vivo Evaluation
Luminita Labusca, Camelia Mihaela Zara Danceanu, Cristina Stavila, Anca Emanuela Minuti, Dumitru Daniel Herea, Valentin Nastasa, Robert Capota, Eusebiu Sindilar, Aurelian Sorin Pasca Sorin Pasca, Mihai Mares, Nicoleta Lupu

3 Implants / Scaffolds

- Po1_3.01 Tribological evaluation of melt electrowritten three-layer PCL multi-scale scaffolds for articular cartilage repair.
Alessio Amicone, Edona Hyla, Gregory de Boer, Stephen Ferguson
- Po1_3.02 Multi-Ion Reinforced Collagen Hydrogels: A Therapeutic Strategy for Osteoporosis.

Adriana Barroso, Diana Pacheco, Rafaela Seabra, Nuno Alves, Carlos Mota, Monica Montesi, Silvia Panseri, Antonio Gloria, Tatiana Patrício

- Po1_3.03 Effect of different Polycaprolactone/Bioactive Glass composite scaffolds on the osteogenic potential of RIA-derived mesenchymal stem cells in a 3D cell culture.
Laura Boehm, Tim Bewersdorf, Jakob Hofmann, Kai Borcharding, Ulrike Sommer, Gerhard Schmidmaier, Tobias Grossner
- Po1_3.05 Preclinical investigation of a novel constant force implant concept for the treatment of leg length discrepancies.
Jan Buschbaum, Maria Hildebrand, Theodor Slongo, Stephan Zeiter, Michael Schütz, Markus Windolf
- Po1_3.06 Development and Preliminary Clinical Evaluation of a Novel Ankle Joint Prosthesis.
Liangliang Cheng, Dewei Zhao
- Po1_3.07 From 3D to 4D – The future of personalized 3D printed medical implants.
Mihai Dragomir
- Po1_3.08 Pre-clinical biomechanical assessment of a patient-matched multi-parametric osseointegrated prosthesis for transfemoral amputees.
Giulia Galteri, Valentina Betti, Cristina Curreli, Domenico Alesi, Stefano Zaffagnini, Marco Palanca, Kavin Morellato, Emanuele Gruppioni, Luca Cristofolini
- Po1_3.09 Mid-term Analysis of the Survival of Uncemented Total Knee Arthroplasties with Modular Tibial Components Made of Porous Tantalum.
Žiga Godicelj, Jure Kastelic, Samo Fokter
- Po1_3.11 Patient-specific Distal Tibia Titanium Trabecular prosthesis for reconstruction in a case of recurrent Giant Cell Tumour in a Young female. 2-year retrospective Case study.
Vikas Jain, Lalit Maini
- Po1_3.12 Impact of Cyclic Loading on the Mechanical Properties of Degradable Braided Scaffolds for ACL Reconstruction: For Walking and Running Conditions.
Viktoria Kiaulehn, Saskia Hesse, Christian Weber, Benedict Bauer, Frank Hildebrand, Thomas Gries, Elizabeth Rosado Balmayor, Caroline Emonts
- Po1_3.13 First measurements of the Active Implant system based on SMA actuation and sensing for improved bone fracture healing.
Susanne-Marie Kirsch, Felix Welsch, Tim Pohlemann, Bergita Ganse, Paul Motzki
- Po1_3.14 Experimental Study on the Design of a Biomimetic Osteochondral Scaffold Based on Microstructure Characteristics of the Adult Knee Joint

Osteochondral Complex.

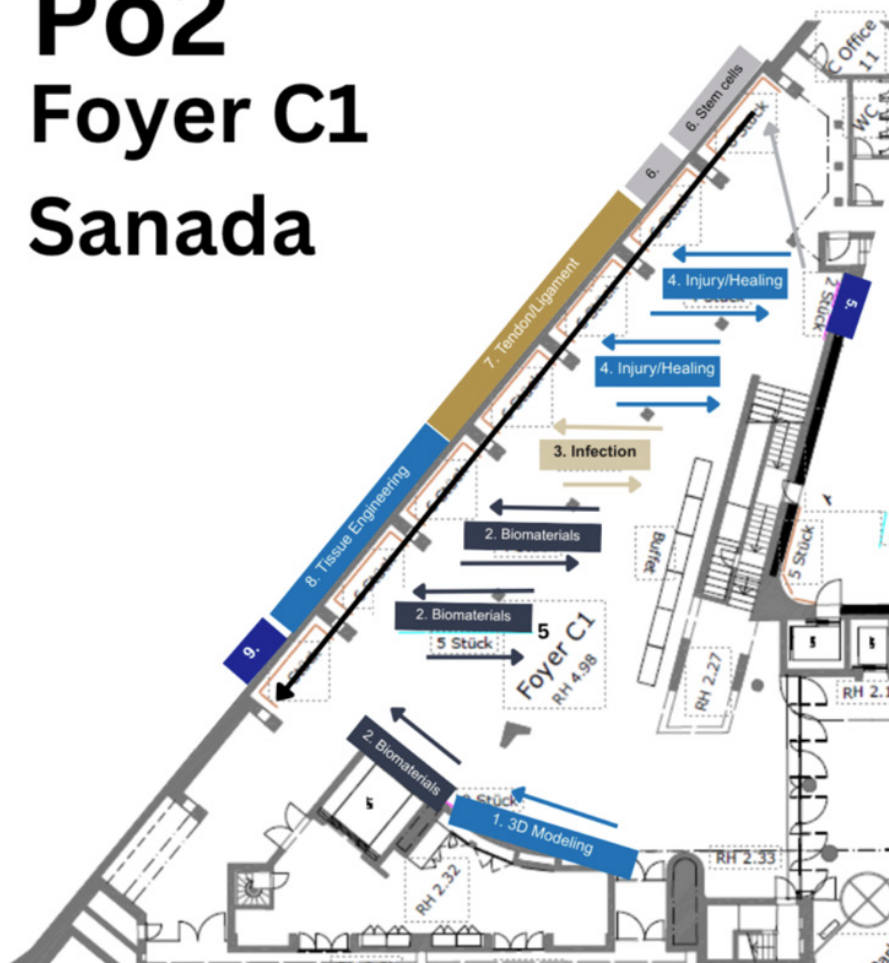
Meng Li

- Po1_3.16 Collagen-Based 3D Scaffolds Enriched with Multi-Ion Doped Hydroxyapatite for Osteosarcoma Therapy.
Diana Pacheco, Adriana Barroso, Rafaela Seabra, Artur Mateus, Nuno Alves, Abílio Sobral, Telma Encarnação, David Barata, Silvia Panseri, Monica Montesi, Carlos Mota, Tatiana Patrício
- Po1_3.17 Dual-Polymer Mineralized Hydroxyapatite Scaffolds for Enhanced Bone Tissue Regeneration.
Rafaela Seabra, Adriana Barroso, Diana Pacheco, Joana Valente, Monica Montesi, Silvia Panseri, Nuno Alves, Artur Mateus, Carlos Mota, Antonio Gloria, Tatiana Patrício
- Po1_3.19 Investigation of Zinc-, Copper-, and Silver-Doped Fluorapatite as Bacteriostatic Bone Grafts.
Samantha Steyl, Pooya Elahi, Jill Shea, James Beck, Jay Agarwal, Alec Griffin, Sujee Jeyapalina
- Po1_3.20 Multidisciplinary optimal design for improved personalized bioactive glass/ceramic bone substitute implants
Pasquale Vena
- Po1_3.24 Application of 3D printing Integrated Acetabular Prosthesis in the treatment of hip dysplasia in total hip arthroplasty.
Dewei Zhao, Liang Cheng, Jiawei Ying
- Po1_3.26 HOBbit - Highly porous bioinert bone implants for non-union fracture healing
Simon Sperger, James Ferguson, Veronika Hruschka, Gabriele Leinfellner, Darja Marolt, Johannes Grillari, Xavier Monforte Vila, Andreas Teuschl-Woller, Thomas Nau, Patrick Heimel, Lydia Zopf, Daniel Bomze, Martin Schwentenwein, Heinz Redl, Regina Brunauer

4 Education

- Po1_4.01 Functional Outcomes and Imaging-Related Factors in Distal Radius Fractures Among Older Adults: A Comprehensive Review.
José Aponte-Reyes, José Acosta-Julbe, Joseph Salem-Hernández, Emmanuel Belardo, Fernando Arocho, Christian Foy-Parrilla

Po2 Foyer C1 Sanada



1. 3D Modelling

2. Biomaterials

3. Infection

4. Injury /Healing

5. Medical Devices

6. Stem Cells -10

7. Tendon/Ligament

8. Tissue Engineering

9. Wearables

Poster: Sanada Foyer C1

Po2

1. 3D Modelling

- Po2_1.01 Application of 3D printing Integrated Acetabular Prosthesis in the treatment of hip dysplasia in total hip arthroplasty.
Liangliang Cheng, Dewei Zhao
- Po2_1.06 Tailor-made: 3D Printing-assisted Autologous Costal Cartilage Remodeling in the Treatment of Complex Carpal Bone Lesions.
Zhenzhong Zhu, Qian Tang, Jiagen Sheng
- Po2_1.07 Reliability Evaluation of Surface-Based Registration Approach to Determine Femoral Rotation Using 3D Bone Models.
Shima Gholinezhad, Ahmed Halloum, Søren Kold, Ole Rahbek, John Rasmussen

- Po2_1.08 3D-Planned Corrective Osteotomy for the Treatment of Distal Radioulnar Joint Instability in Diaphyseal Forearm Malunions.
Sebastiaan Fischer, Eline Van Es, Joost Colaris
- Po2_1.09 User-specific Augmented Reality Rendering Calibration for Eliminating Inter-Subject Variability
Sepehr Madani, Carlo Santaguida, Robert Turcotte, Amir Hooshier, Ahmed Aoude

2. Biomaterials

- Po2_2.02 Development and evaluation of silk fibroin methacrylate (SilMA)-based biomaterials for human hip acetabular labrum regeneration.
Giorgia Borciani, Alessio Bucciarelli, Michela Battistelli, Amber van der Beek, Keita Ito, Brunella Grigolo, Eleonora Olivotto
- Po2_2.03 Electrochemical Behavior of Ti-Nb-Zr-Si Alloy: Potentiodynamic Study in Normal and Inflammatory Conditions.
Aydin Bordbar-Khiabani, Michael Gasik
- Po2_2.04 Elucidating the Molecular Mode of Action of the Osteogenic P-15 Peptide: A Systematic Literature Review.
Eva Burgers, Anna Lodewijks, Thomay Hoelen, Taco Blokhuis, Tim Welting, Marjolein Caron, Scott Johnson, Chris Arts
- Po2_2.06 Synergistic Influence of Mesoporous Bioactive Glass Particle Size and Concentration on the Osteogenic Potential of Calcium Phosphate Cements.
Oznur Demir, Shahrbanoo Jahangir, Mauro Alini, Aldo Boccaccini, Dagnija Loca
- Po2_2.07 “Biodigital Twins”: optimizing biomaterials for orthopaedic implants.
Michael Gasik
- Po2_2.10 Physicochemical characterization and in vitro-evaluation of Bi-doped dendritic mesoporous bioactive glass nanoparticles for bone void-filling applications.
Daniela Jaramillo, Germán Clavijo Mejía, Lenka Buňová, Meng Li, Fatih Kurtuldu, Dušan Galusek, Aldo Boccaccini, Martin Michálek
- Po2_2.12 Mimicking physiology: Perfusion bioreactor characterisation of the polyphenol-functionalized hydrogels for controlled drug delivery.
Anais Morgane Le Masson, Jovana Zvicer, Silvia Spriano, Francesca Gamna, Sara Ferraris, Jasmina Stojkowska
- Po2_2.14 Next-Generation Biomaterials: Mesoporous Bioactive Glasses Enhance the Performance of Calcium Phosphate Bone Cements.
Dagnija Loca, Öznur Demir, Aldo Boccaccini

- Po2_2.18 Templated Synthesis of Hollow RuO₂ Nanospheres for Alleviating Metal Wear Particle-Induced Osteoclast Activation and Bone Loss.
Ziying Sun, Hui Wei, Dongquan Shi, Nirong Shi
- Po2_2.20 Dual-targeted Therapy Based On The Macrophage Niche In Rheumatoid Arthritis.
Siyue Tao, Jian Chen, Fengdong Zhao
- Po2_2.37 Breathing Micelles For Combinatorial Treatment Of Rheumatoid Arthritis
Siyue Tao, Tao You
- Po2_2.23 Effect of LIPUS on the degradation behavior of magnesium alloy scaffolds for bone repair: Insights from in vitro and in vivo studies
Jun Wang, Yuan Zhang, Mingran Zheng, Delin Ma, Shaokang Guan
- Po2_2.24 Near-Infrared Light-Responsive Nanozymes for Reversible Modulation of ROS to Regulate Osteogenic Differentiation.
Zhenzhen Wang
- Po2_2.25 Stem Cell-Laden Hydrogels with Biomimetic Microenvironment for Osteochondral and Cartilage Tissue Engineering.
Bingbing Xu, Wei Liu
- Po2_2.26 Comparative Study of Mechanical and Biological Properties of Decellularized Extracellular Matrix Hydrogels Prepared Using Two Crosslinking Strategies for Cartilage Repair.
Jiangyao Xu, Jacek K Wychowaniec, Matteo D'Este, Mauro Alini, Sibylle Grad, Jeroen Geurts, Zhen Li
- Po2_2.31 In-situ Sprayed platelet-derived small extracellular vesicles for the skin flap survival by reducing PANoptosis.
Liu Zhe, Zhu Zhong, Zhang Qing
- Po2_2.32 Decellularized-disc based allograft and xenograft prosthesis for the long-term precise reconstruction of temporomandibular joint disc.
Haozhe Chen, Nan Jiang, Zhen Li, Songsong Zhu
- Po2_2.33 Fibercoll-Flex-N® in Bone Tissue Engineering: A new formulation of fibrillar collagen and Hydroxyapatite Bioink for Functional Bone Regeneration.
Teresa Zuñiga Arrarás, Amaia Guembe, Iker Ateca, Lena Figur, Loli Gálvez, Jesús Izco
- Po2_2.34 Amorphous calcium phosphate with incorporated glutamic acid enhances bone regeneration.
Jingzhi Fan, Annija Vaska, Antons Sizovs, Janis Locs, Kristaps Klavins
- Po2_2.35 Development of Antibacterial Bone Cements Based on Calcium Phosphate Composites for the Treatment of Bone Infections.
Hanaa Mabroum, Hicham Ben Youcef, Hassane Oudadesse, Allal Barroug, Hassan Noukrati
- Po2_2.36 The wear assessment of a hip implant comprised of a silicon nitride femoral head paired with UHMWPE cup.

3. Infection

- Po2_3.01 Arthroscopic debridement enhanced by intra-articular antibiotic-loaded calcium sulphate beads for septic arthritis of a native knee following iatrogenic joint injection: a case report.
Simone Alongi, Elisa Troiano, Cristina Latino, Giovanni Battista Colasanti, Nicola Mondanelli, Stefano Giannotti
- Po2_3.02 Regulatory Role of Mycobacterium tuberculosis Secreted Protein ESAT-6 in Osteoclast Differentiation.
Mengxuan Dai, Chen Tu, Wensheng Zhang, Minye He, Liming Dong, Jie Zhang, Liang Wang
- Po2_3.03 Characteristics and anatomical location of infected pin-sites.
Marie Fridberg, Anirejuoritse Bafor, Hans-Christen Husum, Christopher Iobst, Ole Rahbek, Søren Kold
- Po2_3.04 Monitoring Early-Stage Osteoarthritis in a Tissue-Engineered In Vitro Model Using Near-Infrared Spectroscopy.
Arjen Gebraad, Harini Karunarathna, Nithin Sadeesh, Omar Elkadi, Antti Eskelinen, Ervin Nippolainen, Susanna Miettinen, Isaac Afara
- Po2_3.09 Tobramycin and BMP2-loaded collagen scaffold for treatment of fracture related infection while promoting bone healing in a critical size defect model in rabbits.
Claudia Siverino, Daniel Arens, Fintan Moriarty
- Po2_3.12 Assessing diagnostic accuracy: 18F-FDG PET-CT Scans in Low-Grade Infection Detection among Post-traumatic Long Bone Non-unions.
Lotte van der Broeck, Anna Lodewijks, Cristina Mitea, Daan Loeffen, Martijn Poeze, Shan Shan Qiu Shao, Jan Geurts, Taco Blokhuis
- Po2_3.14 Evaluation of daptomycin-supplemented antibiotic-loaded bone cement for treating vancomycin-resistant Enterococcus faecalis in the Galleria mellonella implant infection model
Martina Humez, You Z, Gopala-Krishna Mannala, Volker Alt, Martijn Riool, Klaus- Kühn
- Po2_3.16 Gel for delivery of antibiotics (GEDAI) demonstrates antibacterial efficacy in sheep models of S. aureus orthopedic device-related infections (ODRI).
Claudia Siverino, Lena Gens, Pamela Nylund, Andrew Foster, Willemijn Boot, Mats Bue, Stephan Zeiter, R. Richards, Matteo D'Este, T. Moriarty
- Po2_3.17 Using Metabolomics as a Diagnostic Tool for Early Detection of Fracture-Related Infections: Insights from a Pilot Study.
Theresa Schiemer, Claudia Siverino, Fintan Moriarty, Kristaps Klavins

4. Injury & Healing

- Po2_4-01 Synovial Inflammation Increases Anti-Inflammatory and Anti-Degradative Activity in Mesenchymal Stromal Cells.
Pratham Adajania, Rawiya Al Hosni, Mark Birch, Andrew McCaskie
- Po2_4.02 The Role of Immobilised Wnt16 in Modulating Adaptive Immunity and Directing Cartilage Repair and Regeneration.
Rawiya Al Hosni, Richard Moakes, Karthik Chary, Nisha Ramakrishnan, Hayat Muhammad, Joshua Kaggie, Alicia El Haj, Mark Birch, Andrew McCaskie
- Po2_4.04 PML3 A Risk Prediction Tool In Patients With Displaced Neck Of Femur Fractures.
Filip Brzeszczyński, Angela Dziedic, David Hamilton, Marek Synder, Oktawiusz Bończak
- Po2_4.05 Mineralization of ATDC5 cells in an in vitro endochondral ossification model.
Eva Burgers, Chris Arts, Tim Welting, Marjolein Caron
- Po2_4.07 A “Lucky” Shoulder Injury.
Yuchen He, Weihong Zhu
- Po2_4.08 Enhancing Diabetic Wound Healing by Tibial Cortex Transverse Transport (TTT): The Role of Monocyte-Dependent Th17 Cell Activation.
Jiakang Jin, Huating Wang, Gang Li, Sien Lin
- Po2_4.09 The role of viscoelasticity in shaping pro-inflammatory macrophage phenotypes.
Raphael Knecht, David Mooney, Katharina Schmidt-Bleek, Georg Duda
- Po2_4.10 Investigating the Role of Osteoporosis in Rotator Cuff Tears: Causal Relationships and Shared Genetic Loci.
Yibin Liu, Rong Zhao, Zhiyu Huang, Feifei Li, Xing Li, Kaixin Zhou, Kathleen Derwin, Xiaofei Zheng, Hongmin Cai, Jinjin Ma
- Po2_4.11 Unravelling the immuno-mechanical dynamics in the early stages of long bone fracture healing.
Liesbeth Ory, Gabriele Nasello, Tom Verbraeken, Przemko Tylzanowski, Liesbet Geris
- Po2_4.13 Effect of epidermal growth factor on primary wound healing.
Serkan Savaş, Mehmet Konya, Sakhi Fazli, Osman Tosun, Bilge Yılmaz, Merve Savaş
- Po2_4.14 Investigating lymphangiogenesis in bone fracture models using a spatial transcriptomic approach.
Tom Verbraeken, Gabriele Nasello, Liesbeth Ory, Ioannis Papantoniou, Liesbet Geris, Przemko Tylzanowski

- Po2_4.16 Therapeutic Application of Recombinant Human Platelet-Derived Growth Factor-B Homodimer and Collagen-Bioceramic Composites for Critically-Sized Non-Union Bone Defects.
Lukasz Witek, Vasudev Nayak, Quinn Ehlen, Joseph Costello II, Nicholas Mirsky, Blaire Slavin, Sophie Kelly, Camila Suarez, Paulo Coelho
- Po2_4.17 The impact of medial patellotibial ligament injury on the tension of the medial patellofemoral ligament.
Xingquan Xu, Shuyu Yuan, Qing Jiang
- Po2_4.20 Comparative spatial analysis of axolotl and mammalian patterning during limb development and regeneration
Alex Trostle, Dimitri Sokolowskei, Mimi Sammarco, Catherine McCsuker, Robert Tower
- Po2_4.21 Case report: severe subgaleal haematoma associated with methamphetamine intoxication.
Rita Falcao, Cátia Ferreira
- Po2_4.22 TrkA+ sensory nerve signaling is required to promote digit regeneration.
Mimi Sammarco, Emily Busse, Dimitri Sokolowskei, Kyle Berry, Sarah McMahon, Robert Tower

5. Medical Devices

- Po2_5.04 Clinical Application of an Intelligent Walker and Remote Rehabilitation System in Lower Limb Orthopedic Postoperative Rehabilitation.
Zhenzhong Zhu, Changqing Zhang, Qian Tang, Jiagen Sheng
- Po2_5.05 Ultrasonic vs. Conventional Saw Bone Cutting in a Rat Tibial Fracture Model: Comparable Healing Outcomes.
Nisreen Al-Namnam, Steph Collishaw, Melanie Wheeldon, Xuan Li, Margaret Lucas, A. Hamish R. W. Simpson

6. Stem Cells

- Po2_6.01 Exploiting Mechanical Cues to Enhance Mesenchymal Stem Cell Differentiation for Modern Orthopaedic Applications.
Farah Daou, Stefano Gabetti, Beatrice Masante, Eleonora Zenobi, Carlotta Achille, Elisa Scatena, Simone Israel, Cristina Bignardi, Diana Massai, Andrea Cochis, Lia Rimondini
- Po2_6.02 Dexamethasone-Induced Gene Expression Dysregulation in Osteogenic Differentiation and Inflammation of Human Mesenchymal Stromal Cells.

Jorge Úbeda Garrido, Antoine Buetti-Dinh, Claudia Siverino, Martin Stoddart, Elena Della Bella

- Po2_6.03 Targeting MCH Neuroendocrine Circuit in Lateral Hypothalamus to Protect Against Skeletal Senescence.
Bin Guo, Yuqi Liu, Yong Zhu, Jianxi Zhu
- Po2_6.04 Live Tracking of Cellular Functional Osteogenic Differentiation Using Spherical Nucleic Acid mRNA Nanoflare-based Sensors.
El Mustapha Haddouti, Tianli Hu, Hannes Beckert, Christof Burger, Dieter Wirtz, Chenjie Xu, Frank Schildberg
- Po2_6.05 Towards a 3D Organoid Model to study Effects of the Immune Checkpoints Programed Cell Death Ligand 1 (PD-L1) and Its Receptor PD-1 on Bone Homeostasis.
El Mustapha Haddouti, Mengbo Zhu, Surendar Jayagopi, Viktoriia Mospan, Tianli Hu, Hannes Beckert, Janine Becker-Gotot, Alina Armbruster, Chenjie Xu, Lamia Singer, Christoph Bourauel, Christof Burger, Dieter Wirtz, Frank Schildberg
- Po2_6.06 Optimizing MSC-based Therapies: Enrichment of Immunomodulatory Populations for Inflammatory Orthopedic Disorders.
Luan Hatt, Nick Herger, Jan Devan, Tamara Mengis, Mazda Farshad, Oliver Distler, Stefan Dudli
- Po2_6.11 A Comparison of Bovine Adipose-Derived Mesenchymal Stromal Cells With Nucleus Pulposus Progenitor Cells: Exploring Extracellular Vesicle Therapy for Intervertebral Disk Regeneration.
Leon Schlagenhof, Carla Raffaele, Cristina Zivko, Paola Luciani, Ali Hashemi Gheinani, Benjamin Gantenbein
- Po2_6.13 Adipose stem cells from supra lata area : As efficient as abdominal adipose tissue source.
Julia Vettese, Julie Manon, Gaspary Fodjeu, Alexandre Goussens, Benoît Lengelé, Olivier Cornu
- Po2_6.14 Role of timing in mechanically induced in vitro cartilage formation.
Katrin Wendrich, Maja Schlittler, Laura Mecchi, Elena Della Bella, Martin Stoddart

7. Tendon /Ligament

- Po2_7.02 The Biomechanical Properties of Hamstring Autografts Presoaked with Vancomycin Under Cyclic Loading.
Tae Soo BAE, Hyung-Jun Park, Dai-Soon Kwak
- Po2_7.05 Enhanced cell proliferation and cytoskeletal reorganization depending on cyclic stretch program of lapine Achilles tenocytes and human mesenchymal stem cells.

Clemens Gögele, Clea Wiedmann-Kline, Jens Konrad, Christian Werner, Kerstin Schäfer-Eckart, Bernd Hoffmann, Gundula Schulze-Tanzil

- Po2_7.06 Comparative efficacy and safety of different surgical approaches for the treatment of anterior cruciate ligament injury: a Bayesian network meta-analysis.
Yuchen He, Weihong Zhu
- Po2_7.07 Biomimetic Poly-ε-caprolactone Braids for Anterior Cruciate Ligament Reconstruction: An Analysis of the Influence of the Filament Arrangement on Mechanical Behavior.
Saskia Hesse, Benedict Bauer, Thomas Gries, Caroline Emonts
- Po2_7.08 Age-Related Alterations in 3D Microvasculature of Equine Tendons: Insights from Immunolabelling and Micro-Computed Tomography.
Nodoka Iwasaki, Jack Llewellyn, Elizabeth Finding, Caroline Wheeler-Jones, Chavaunne Thorpe
- Po2_7.09 Analysis of imaging presentations, full endoscopic evaluation, and pathological characteristics of a novel interlaminar ligament.
Xiaofeng Le
- Po2_7.10 The ageing tendon extracellular matrix is compromised by senescent cells.
Jack Llewellyn, Nodoka Iwasaki, Jay Dudhia, Richard Faragher, Chavaunne Thorpe
- Po2_7.12 The Cambridge Knee Injury Tool (CamKIT): A Clinical Prediction Tool for Acute Soft Tissue Knee Injuries.
Thomas Molloy, Benjamin Gompels, Simone Castagno, Stephen McDonnell
- Po2_7.13 Assessing Diagnostic Challenges in Acute Soft-tissue Knee Injuries: A Delphi Study.
Thomas Molloy, Benjamin Gompels, Stephen McDonnell
- Po2_7.14 PIEZO1 promotes tendon growth in adults via mechanical stress.
Ryo Nakamichi, Masataka Ueda, Hisakazu Shitozawa, Taichi Saito, Toshifumi Ozaki
- Po2_7.15 LARS synthetic ligaments: a new frontier?
Massimo Piracci
- Po2_7.17 The effect of mechanical stress on enthesis homeostasis in a rat Achilles enthesis organ culture model.
Taichi Saito, Masataka Ueda, Hisakazu Shitozawa, Ryo Nakamichi, Toshifumi Ozaki
- Po2_7.19 Anterior cruciate ligament in the osteoarthritic human knee: fibril-level changes revealed by the atomic force microscopy.
Adnan Tahir, Cristina Florea, Petri Tanska, Mikko Finnilä, Heikki Kröger, Rami Korhonen, Aapo Ristaniemi

- Po2_7.21 The role of SIRT3 of mitochondrial homeostasis regulation in rotator cuff injury and repair.
Xueying Zhang, Jiebo Chen
- Po2_7.23 Unveiling inflammation dissipation and pro-fibrotic cell populations of subacromial bursa as critical contributors to frozen shoulder by integrating single-cell transcriptomics and spatial transcriptomics
Jiong Jiong Guo, Yetian Ma, Huilin Yang

8. Tissue Engineering

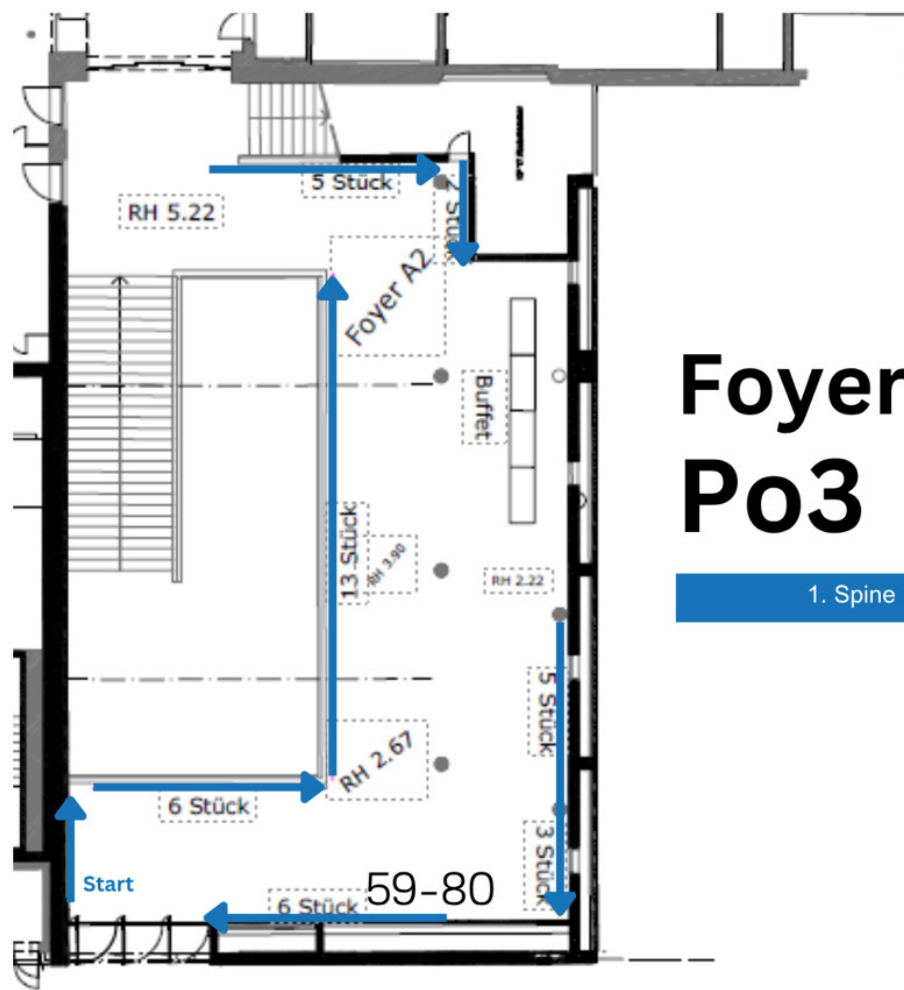
- Po2_8.01 Osteochondral tissue regeneration in an orthotopic rat model using gelatin-based cellular implants.
Hannah Agten, Jasper Van Hoorick, Sandra Van Vlierberghe, Veerle Bloemen
- Po2_8.05 Bridging the Gap in Cartilage Repair: Development of a Human Osteochondral Explant Model for Advanced Regenerative Therapies.
Johanna Brobeil, Dorothea Alexander- Friedrich, Marina Danalache, Felix Umrath Johanna Brobeil Tissue engineering
- Po2_8.07 Cytoskeleton reorganization rejuvenates senescent chondrocytes via FAK/Dnmt1 pathway.
Yuchen He
- Po2_8.08 Detergent-free supercritical CO₂-assisted protocol for the sustainable production of highly preserved decellularized porcine meniscus for orthopedic applications.
Chou Ho, Francisco Rodrigues, Mariana Reis, Viviana Ribeiro, Ana Oliveira, João Costa
- Po2_8.09 MiRNA modulation for bone-vessel-nerve triad regeneration: A breakthrough in bone defect therapy?
Virginie Joris, Noémie Tilquin, Martijn van Griensven
- Po2_8.10 Guiding cell alignment and chondrogenesis for articular cartilage repair.
Alisa Suturen, Julia Kamp, Laura De Laporte, Jietao Xu, Nicole Kops, Gerjo van Osch
- Po2_8.11 Adaptation of Near Infrared Spectroscopy for In Situ Monitoring and Optimisation of Tissue Engineered Cartilage Growth.
Harini Karunarathna, Nithin Sadeesh, Omar Elkadi, Antti Eskelinen, Ervin Nippolainen, Arjen Gebraad, Susanna Miettinen, Isaac Afara
- Po2_8.13 Injectable polymeric hydrogel for advanced cell delivery in cartilage regeneration.
Ján Kováč, Pavla Hájovská, Zuzana Kroneková, Juraj Kronek, Stanislav Žiaran, Ľuboš Danišovič, Abolfazl Heydari, Igor Lacík

- Po2_8.14 A New In Vitro Model of Inflammation and Endothelial Dysfunction to Investigate the Effects of Ion-Releasing Fabrics on Musculoskeletal Inflammatory Processes.
Erwin Pavel Lamparelli, Saveria Batti, Vincenzo Visco, Nicola Maffulli, Giovanna Della Porta
- Po2_8.17 Macromolecular crowding in the development of advanced therapy medicinal products for orthopaedic indications.
Dimitrios Zeugolis
- Po2_8.18 The Study of Osteoporosis Induced by Chronic Colitis Through the Tryptophan Metabolism Pathway.
Ping Zhang, Hao Wu, Liang Zhang
- Po2_8.19 The Role of GDF5 in Enhancing Cell Survival on Silk Scaffolds for Intervertebral Disc Regeneration.
Ashish Kumar, Sophie van Leemput, Sónia Filipa Fernandes Marques, Parisa Torabi Rahvar, Michael Wöltje, Benjamin Gantanbein

9. Wearables (2 posters)

- Po2_9.01 Tracking Recovery: From Injury to Recovery with Motion Capture and Sensor Technology.
Anncristin Andres, Michael Roland, Marcel Orth, Stefan Diebels
- Po2_9.02 Digital monitoring of patients undergoing orthopedic deformity correction: feasibility and patient acceptability.
Pernille Clasen, Lili Jensen, Tina Jensen, Arash Ghaffari, Harshit Mahapatra, Ole Rahbek, Søren Kold

POSTERS



Foyer A2 Po3

1. Spine

Foyer A2 - Po3

1. Spine

- Po3_1.01 Exploring the 3D architecture of native and stained human intervertebral discs through micro-CT.
Raluca Barna, Federica Orellana, Marie-Rosa Fasser, Daniel Valent, Jonas Widmer, Annapaola Parrilli
- Po3_1.03 A Degradable Nanofibrous Scaffold Of Poly(E-Caprolactone-Co-Lactide)For Annulus Fibrosus Regeneration.
Mansoor Chaaban, Chloé Falcoz, Coline Pinese, Hans-Joachim Wilke, Jan Ulrich Jansen, Floriane Etienne, Marion Fusellier, Benjamin Nottelet, Xavier Garric, Jérôme Guicheux, Catherine Le Visage
- Po3_1.04 Vertebral fracture prediction from MRI-based vertebral bone quality scores in postmenopausal women: A longitudinal cohort study.
Tao Chen, Zhiyun Wang, Wentao Lin, Xiaoqian Wang, Houjie Yin

- Po3_1.07 **Noggin Expression in Human Nucleus Pulposus Cells: A Comparative Study of Degenerative and Healthy Intervertebral Discs.**
Shuimu Chen, Sebastian Bigdon, Sonja Häckel, Christoph Albers, Zhen Li, Benjamin Gantenbein
- Po3_1.08 **Improved Intervertebral Disc Fusion with Biologics: The prostaglandin E2 receptor 4 agonist KMN159 acts synergistically with BMP2 and L51P to induce osteogenic differentiation of human annulus fibrosus cells.**
Shuimu Chen, Xinggui Tian, Stefan Zwingenberger, Christoph Albers, Benjamin Gantenbein, Sonja Häckel
- Po3_1.09 **TAL1/FOXO3 axis in chondrocyte apoptosis regulated by the PI3K-Akt-mTOR signaling pathway in LFJOA.**
Tao Chen, Zhiyun Wang
- Po3_1.10 **ECM degradation-driven accumulation of cytotoxic V δ 1 T-cells in Modic type 1 changes.**
Jan Devan, Irina Heggli, Tamara Mengis, Michaela Sandalova, Dominick Burri, Pamela Bltteri, Nick Herger, Danilo Menghini, Felipe Hatt, Kenta Brender, Melina Valdes, Cristoph Laux, Mazda Farshad, Oliver Distler, Stefan Dudli
- Po3_1.13 **Immune cell alterations in patients with post-operative infections of the spine.**
Pia Fehrenbach, Siegmund Lang, Puk Kwant, Maja Gocevic, Anne Sophie Mittlmeier, Claudia Siverino, Cezmi A. Akdis, Esther C. de Jong, T. Fintan Moriarty, Sybille Grad, Markus Loibl
- Po3_1.14 **Mitophagy inhibitor SPP1 regulates nucleus pulposus cell fate during degeneration and calcification by activating ITG α 5/ β 1 and inhibiting ubiquitin-dependent PINK1/PARKIN pathway.**
Yuan Gao, Hanwen Gu, Lei Cheng
- Po3_1.17 **Plasmacytoid dendritic cells expand in Modic type 1 change bone marrow lesions and overexpress toll-like receptor 4.**
Irina Heggli, Jan Devan, Dominik Burri, Tamara Mengis, Kenta Brender, Oliver Distler, Mazda Farshad
- Po3_1.18 **Impact of Caudal Segment Bone Fusion on Rod Load at the Cranial Segment in a Two-Level Spinal Interbody Fusion Construct – A Biomechanical Study.**
Maximilian Heumann, Chencheng Feng, Boyko Gueorguiev, Jan Buschbaum, Christian Mazel, Maarten Spruit, Robert Richards, Manuela Ernst
- Po3_1.20 **Is there an association between scoliosis in childhood and adolescence and long term risk of cancer? A systematic review.**
Frederik Højsager, Lea Laursen, Ane Simony, Rene Castelein

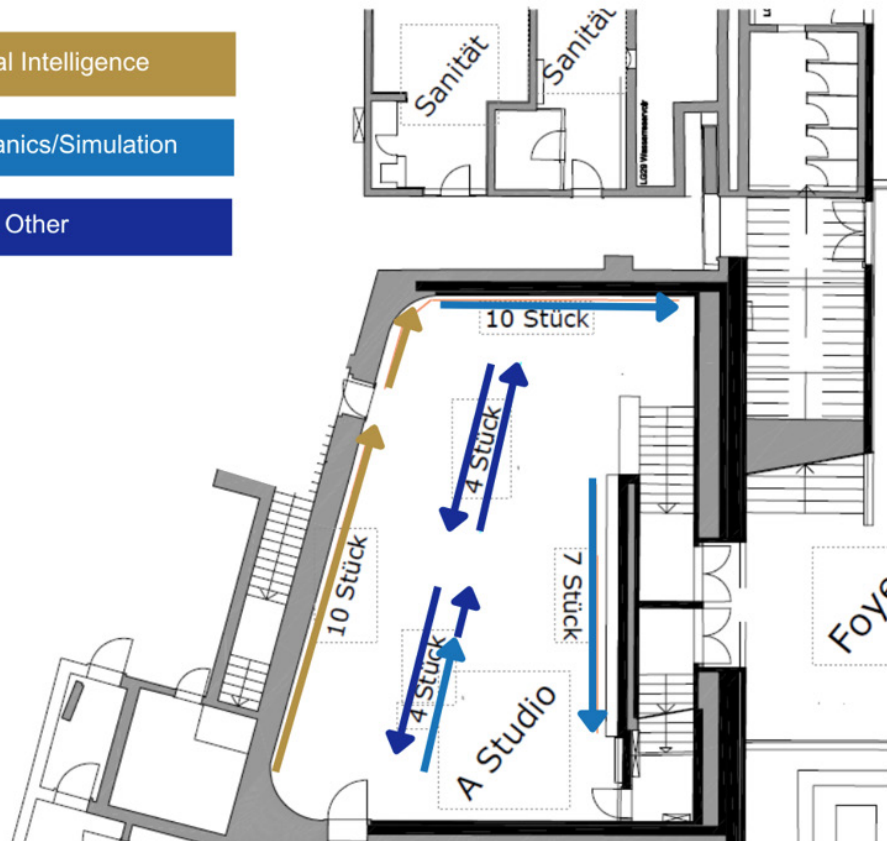
- Po3_1.22 How to implant a degradable, regenerative annulus fibrosus closure? An in vitro study.
Jan Ulrich Jansen, Leonie Riek, Mansoor Chaaban, Chloé Falcoz, Xavier Garric, Marion Fusellier, Cornelia Neidlinger-Wilke, Jérôme Guicheux, Catherine Le Visage, Hans-Joachim Wilke
- Po3_1.23 Development of High-throughput Assay to Screen Potential Drugs Identifies Papaverine as Neuroprotection Drug for Spinal Cord Injury via Blood-spinal Cord barrier protection.
Yuki Suzuki, Ken Kadoya, Akihito Sotome, Atsushi Sakuraba, Takeshi Endo, Tsuyoshi Asano, Satoko Otsuguro, Katsumi Maenaka, Shinsuke Nakagawa, Norimasa Iwasaki
- Po3_1.25 3D bioprinting of whole intervertebral discs analogues reveals regulation of cell phenotype and regional matrix formation through stiffness and oxygen tension modulation.
Matthew Kibble, Marco Domingos, Stephen Richardson
- Po3_1.28 Discordance in lumbar bone mineral density measurements by quantitative computed tomography and dual-energy X-ray absorptiometry in postmenopausal women: a prospective comparative study.
Wentao Lin, Zhiyun Wang, Houjie Yin, Tao Chen, Xiaoqian Wang
- Po3_1.29 Hypoplasia of the atlas pedicle in patients with os odontoideum: a CT-based morphometric analysis.
Wentao Lin, Faqin Xie, Xiaoqian Wang, Zhiyun Wang
- Po3_1.30 Assessment of bone density using the 1.5 T or 3.0 T MRI-based vertebral bone quality score in older patients undergoing spine surgery: Does field strength matter?
Wentao Lin, Zhiyun Wang
- Po3_1.34 Calcium pyrophosphate dehydrate crystals induce pro-inflammatory and proteolytic gene expression in disc cells and are walled-off in situ.
Tamara Mengis, Andreas Invernizzi, Olivia Hardegger, Andrea Laimbacher, Roy Marcus, Mazda Farshad, Oliver Distler, Florian Brunner, Stefan Dudli
- Po3_1.35 Intervertebral Disc State Fingerprint to classify degeneration and low back pain in the Northern Finland Birth Cohort 1966.
Estefano Muñoz-Moya, Terence McSweeney, Francis Kiptengwer-Chemorion, Mark van Gils, Jaro Karppinen, Carlos Ruiz Wills, Gemma Piella, Jérôme Noailly
- Po3_1.37 The Role of Platelet-Rich Plasma (PRP) in Posterolateral Lumbar Fusion: A Meta-Analysis of Fusion Success and Safety With Subgroup Analyses by Instrumentation and PRP Preparation.
Chawakrit Pansritoom

- Po3_1.38 Optimizing Cage Material and Surgical Approach (Open vs. MIS) in TLIF: A Network Meta-Analysis of PEEK, Titanium, TiPEEK, and 3D-Printed Titanium.
Chawakrit Pansritoom
- Po3_1.39 Long-Term Outcomes of Cortical Bone Trajectory versus Traditional Pedicle Screws in Lumbar Fusion: A Systematic Review and Meta-Analysis.
Chawakrit Pansritoom
- Po3_1.40 The Importance of Psoas Muscle on Low Back Pain: a Single-Center Study on Lumbar Spine MRI.
Giuseppe Francesco Papalia, Fabrizio Russo, Gianluca Vadalà, Luca Ambrosio, Girolamo Maltese, Niccolò Nardi, Carlo Augusto Mallio, Rocco Papalia, Vincenzo Denaro
- Po3_1.41 The Fear-Avoidance Model in Patients with Low Back Pain: A Systematic Literature Review and Meta-Analysis.
Giorgia Petrucci, Giuseppe Papalia, Luca Ambrosio, Fabrizio Russo, Rocco Papalia, Gianluca Vadalà, Vincenzo Denaro
- Po3_1.43 Advancements in AI for Low Back Pain Integrating Automated Muscle Analysis and Disc Identification.
Fabrizio Russo, Gianluca Vadalà, Giuseppe Francesco Papalia, Luca Ambrosio, Mario Merone, Federico D'Antoni, Rocco Papalia, Vincenzo Denaro
- Po3_1.44 Cross-Cultural Adaptation and Validation of the Spanish Version of The Early-Onset Scoliosis Self Report Questionnaire (EOSQ-SELF).
Joseph Salem-Hernández, Cristian Cortés-Nieves, Hiroko Matsumoto, Norman Ramirez-Lluch, Pablo Marrero
- Po3_1.45 Thoracic pedicle screw anchorage using the new modified slide technique.
Werner Schmoelz, Fabian Krumm, Anna Spicher, Romed Hoermann, Richard Lindtner
- Po3_1.50 Accuracy of subaxial cervical pedicle screw placement with computer navigation system.
Yasuyuki Shiozaki
- Po3_1.51 Mechanosensitive ion channel PIEZO1 regulates ossification of Annulus Fibrosus.
Hisakazu Shitozawa, Ryo Nakamichi, Ueda Masataka, Taichi Saito, Aki Yoshida
- Po3_1.52 Targeting cellular senescence to combat osteoarthritis and intervertebral disc degeneration.
Joseph Snuggs, Heather Wilson, Endre Kiss-Toth, J Mark Wilkinson, Christine Le Maitre

- Po3_1.55 Mechanism of FTO-Mediated m6A Demethylation Regulation of YAP in Nucleus Pulposus Cell Senescence.
Rui Sun, Cong Zhang, Xiaotao Wu
- Po3_1.57 Fusion Rate of Biphasic Calcium Phosphate Bone Graft with Needle-Shaped Submicron Topography in Interbody Lumbar Fusion for Degenerative Disc Disease: A Single-Center Retrospective Review.
Samuel Wakelin, Kelsey D. Cobourn, Thomas Stirrat, Katherine Sage, James T. Ryaby, Faheem A. Sandhu, Luuk Van Dijk, Ceri-Anne Suurmond
- Po3_1.58 Value of different preoperative bone evaluation methods in predicting intraoperative screw insertion torque-a prospective clinical comparative trial.
Zhiyun Wang, Houjie Yin, Wentao Lin
- Po3_1.59 Macrophage-derived Legumain Attenuates Intervertebral Disc Degeneration by Regulating Stress-induced Catabolism and Metabolism Imbalances of Nucleus Pulposus cells via the Integrin $\alpha\beta3$ /RhoA/ROCK1 Pathway.
Peiyang Wang, Zhiyang Xie, Lei Liu, Cong Zhang, Yuntao Wang, Xiaotao Wu
- Po3_1.75 A cadaver feasibility study of extradural contralateral C7 ventral root transfer technique for treating upper extremity paralysis.
Kaixiang Yang
- Po3_1.78 Early Markers of Mechanical Intervertebral Disc Degeneration of Whole Bovine Discs Loaded in a Multiaxial Bioreactor.
Barbora Kubincova, Marcia Mürner, Junxuan Ma, Aapo Ristaniemi, Stephen Ferguson, Francesco Crivelli, Diane Ledroit, Gilles Weder, Amra Šećerović, Sibylle Grad
- Po3_1.79 Low-magnitude high-frequency vibration and Piezo1 contribute to intervertebral disc degeneration.
Luisa de Roy, Claudia Goerlich, Astrid Schoppa, Melanie Haffner-Luntzer, Anita Ignatius, Cornelia Neidlinger-Wilke, Graciosa Teixeira
- Po3_1.80 Controllable nitric oxide release material relieves intervertebral disc degeneration through antibacterial effect and inhibiting osteoclast activation.
Siyue Tao, Fengdong Zhao

A Studio Po4

- 1. Artificial Intelligence
- 2. Biomechanics/Simulation
- 3. Other



A Studio - Po4

1. Artificial intelligence

- Po4_1.02 Can web-based applications improve visualisation and interpretation of machine learning predictions in Orthopaedics?
Simone Castagno, Stephen McDonnell, Mark Birch, Mihaela van der Schaar, Andrew McCaskie
- Po4_1.03 Evaluating the Reliability of AI-Based Long Leg Alignment Analysis in EOS Imaging and Severe Deformities.
Shima Gholinezhad, Ole Rahbek, Hans-Christen Husum, Søren Kold
- Po4_1.04 Automated Radiographic Assessment of Lower Limb and Foot Alignment Using Deep Neural Networks.
Luca Häfliger, Sydney Schmuki, Anika Stephan, Vincent Stadelmann

- Po4_1.08 AI-assisted diagnosis using DEANet to improve correct diagnosis of iliac wing fracture and ischial spine fracture.
Chun-Hao Tsai, Kai-Cheng Lin, Yi-Chin Fong, Tsung-Y Ho
- Po4_1.09 Deep Learning-Based Volumetric Analysis and Steinberg Classification of Osteonecrosis of the Femoral Head.
Keisuke Uemura, Kazuma Takashima, Yoshito Otake, Ganping Li, Hirokazu Mae, Hidetoshi Hamada, Yoshinobu Sato, Nobuhiko Sugano
- Po4_1.10 Revolutionizing Orthopaedics: Opportunities and Challenges of Code-Free Deep Learning Technologies.
Nicholas Tin Lik Wong, Yu Tung Wong
- Po4_1.11 Foundation Models: Shaping the Future of AI in Real-World Orthopaedic Practice.
Nicholas Tin Lik Wong, Yu Tung Wong
- Po4_1.12 Orthopaedics-grounded generative adversarial network: friend or foe?
Nicholas Tin Lik Wong, Yu Tung Wong
- Po4_1.13 Utilizing Machine Learning to Enhance Core Outcome Set Development: Automating the Extraction and Classification of Outcomes.
Ali Yalcinkaya, Kristian Kjellmann, Ole Rahbek, Søren Kold, Hans-Christen Husum
- Po4_1.15 Deep learning model for differentiating acute and chronic osteoporotic vertebral compressive fracture from multidetector CT.
Kaixiang Yang
- Po4_1.16 Automated Prediction of Bone Mineral Density and T-Score from Radiographs via Deep Learning.
Elvis Chun-Sing Chui, Xiaoli Liu, Xin Ye, Patrick Shu-Hang Yung
- Po4_1.17 Effectiveness of a Large Language Model in Reverse Shoulder Surgery.
Elvis Chun-Sing Chui, Xiaoli Liu, Xin Ye, Patrick Shu-hang Yung
- Po4_1.18 Diagnosis of Femoral Head Necrosis and Three-dimensional Spatial Localization of Necrotic Lesions Based on CT Perfusion Imaging Technology.
Ruo-Tao Liu, Zhen-Zhong Zhu, Chang-Qing Zhang

2. Biomechanics / Simulation

- Po4_2.01 The Impact of Bilateral Total Hip Arthroplasty on Lower Extremity Biomechanics in Bilateral Developmental Dysplasia of the Hip-Associated Secondary Coxarthrosis: Medium-to-Long-Term Valgus Alignment in the Knee Joint.
Muhammed Yusuf Afacan, Mahmut Gorkem Gurcinar, Cumhuri Deniz Davulcu, Mehmet Can Unlu, Gokhan Kaynak

- Po4_2.02 The Impact of Total Hip Arthroplasty on Lower Extremity Biomechanics in Unilateral Developmental Dysplasia of the Hip-Associated Secondary Coxarthrosis: The Course of Valgus Alignment in the Knee Joint.
Muhammed Yusuf Afacan, Mahmut Gorkem Gurcinar, Cumhur Deniz Davulcu, Mehmet Can Unlu, Gokhan Kaynak
- Po4_2.03 Regulatory Network Modeling of Macrophage Polarization Signaling Pathways in the Synovium of the Normal Knee Joint: Establishing a Baseline for Subsequent Modeling of Osteoarthritic Knee Joint Dynamics.
Yalemzerf Alemu, Jérôme Noailly
- Po4_2.06 Combined Clinical, Biological and Biomechanical Investigations in The Evaluation of Knee Osteotomy Alone and Combined With Meniscal Allograft Transplantation.
Claudio Belvedere, Andrea Varaschin, Nicoletta Sileoni, Gina Lisignoli, Alessandro Di Martino, Stefano Zaffagnini, Lorenzo Zanasi, Elena Gabusi, Enrico Lenzi, Valentina Matti, Alberto Leardini
- Po4_2.10 Dxa-Based 3d Finite Element Models Predict Hip Fractures Better Than Bmd In Ostpre Cohort.
Lorenzo Grassi, Sami Väänänen, Antti Voss, Tomi Nissinen, Reijo Sund, Heikki Kröger, Hanna Isaksson
- Po4_2.11 Understanding the crosstalk between mechanical stimulation, macrophage polarisation and MSC differentiation: An in vitro model to simulate early events during bone fracture healing.
Anne Géraldine Guex, Ursula Menzel, Yann Ladner, Angela Armiento, Martin Stoddart
- Po4_2.15 Unraveling the Mechanics of Buckyball Microscaffolds: A Computational Approach.
Ajay Kumar, Valentina Kumbolder, Rathina Balasubramanian, Julia Fernandez Perez, Aleksandr Ovsianikov, Christian Hellmich, Stefan Scheiner
- Po4_2.17 Superior-Segment Bilateral Facet Violation in Lumbar Transpedicular Fixation: A Biomechanical Study.
Xiaofeng Le
- Po4_2.21 How accurately can surgeons perform angle manipulation? Quantitative assessment of the accuracy of manual angle manipulation of orthopedic surgery: a cadaver study.
Young Hwan Park, Sang Gyun Kim, Woo Hyeun Kim
- Po4_2.22 Piezo1 Conjugated Nanoparticles Induced Osteogenic and Anti-osteoclastogenesis Activation Regulated by Dynamic Magnetic Stimulation.
Yixian Qin, Elias Georgas, Muzhaozi Yuan, Ya Wang
- Po4_2.23 Investigation of the influence of screw position and screw insertion on the local micro-mechanics of the fracture gap and the interfragmentary

movement.

Michael Roland, Annchristin Andres, Kerstin Wickert, Stefan Diebels, Benedikt Braun

- Po4_2.24 Electromyography analysis of muscle activity during virtual reality dynamic plank exercise on icaros pro machine.
Hasan SHARIF, Mohamed Elnemr, Faisal Mahmood, Khalid Salih, Hassan Khan, Philip Heaton (JNR), Buju Heaton, Phil Heaton (Ph.D)
- Po4_2.25 Medial Opening-Wedge High Tibial Osteotomy Alters Three-Dimensional Knee Joint Biomechanics and Trunk Posture .
Yuki Suzuki, Yasumitsu Ohkoshi, Kensaku Kawakami, Shigeyuki Sakurai, Kengo Ukishiro, Tomohiro Onodera, Koji Iwasaki, Ko Suzuki, Tatsunori Maeda, Sho'ji Suzuki, Eiji Kondo, Norimasa Iwasaki
- Po4_2.26 Enhancing Protein Interaction Networks in IVDD Using Machine Learning Link Prediction.
Sofia Tseranidou, Francesco Gualdi, Paola Bermudez-Lekerika, Exarchos Kanelis, Benjamin Gantenbein, Leonidas G. Alexopoulos, Christine L. Le Maitre, Janet Piñero, Jérôme Noailly
- Po4_2.27 Preclinical characterization of Mg-Zn-Ca implants biomechanics, by using ovine tibia model.
Valentin Weigl, Omer Suljevic, Christopher Stahle, Fernando Warchomicka, Romy Marek, Nicole Sommer, Gerhard Sommer, Annelie Weinberg, Begüm Okutan
- Po4_2.28 Impact of Computational Models on the Outcome of FE Biomechanical Simulations.
Kerstin Wickert, Annchristin Andres, Michael Roland, Benedikt Braun, Tina Histing, Stefan Diebels
- Po4_2.30 The Comparative Biomechanical Effects Of Remplissage And Dynamic Anterior Stabilization On Treating On-Track And Off-Track Bipolar Bone Loss.
Chenliang Wu
- Po4_2.40 bilateral cervical and shoulder range of motion asymmetry in university para athletes with neurological disorders.
Ryan Moran, Elizabeth Elder

3. Others

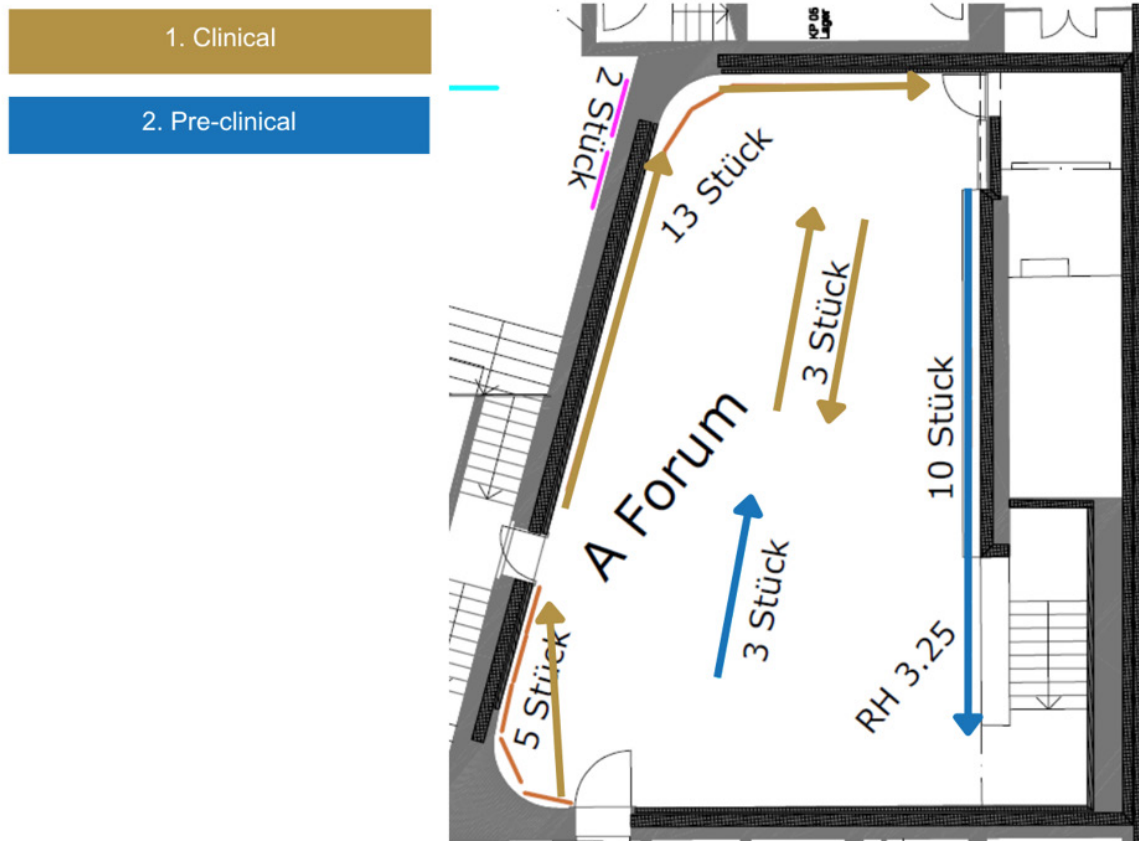
- Po4_3.01 A disruptive Organ-on-Chip device with a paper-based origami configuration: the Phoenix-OoC.
Valentina Basoli, Javier Ramon, Kersti Hermansson, Goran Stojanovic, Cosimo Loffreda, Luciano Riso, Laura Belcastro, Sanja Kojic, Milica Abeer, Andrea Mainardi, Andrea Barbero, Florian Thieringer, Luca Fiore, Fabiana Arduini

- Po4_3.02 Identification of Two Biological Subgroups of Complex Regional Pain Syndrome Type 1 by Transcriptomic Profiling of Skin and Blood.
Pamela Bitterli, Melina Perez Vertti Valdes, Astrid Jüngel, Jan Devan, Hubert Rehrauer, Lennart Opitz, Laura Sirucek, Petra Schweinhardt, Sabrina Catanzaro, Oliver Distler, Florian Brunner, Stefan Dudli
- Po4_3.04 Does Metabolomic Profile Differ in Conventional and Activated Platelet-Rich Plasma?
Bilge Fidan, Ozan Kaplan, Emine Koç, Mustafa Çelebier, Feza Korkusuz
- Po4_3.06 Arthrodesis of the subtalar joint using a novel biphasic calcium phosphate bone graft.
Thomas Fusco, Katherine Sage, Stasia Rush, Felicia Blom, Kyle Colvin, Luuk van Dijk, Ceri-Anne Suurmond
- Po4_3.07 A Mahjong Player's Hidden Handicap
Yuchen He, Jianwei We
- Po4_3.09 Vascular invasion model of hypertrophic cartilage-like pellets: An in vitro feasibility study.
Anita Jose, Aline Klaus, Martin Stoddart, Esther Wehrle, Eric Farrell, Sophie Verrier
- Po4_3.10 Does Freeze-Thawing Change the Metabolomic Active of Platelet-Rich Plasma?
Ozan Kaplan, Bilge Fidan, Emine Koç, İlayda Demirdiş, Mustafa Çelebier, Feza Korkusuz
- Po4_3.11 Mechanoadaptation and tumor stemness driven by O-GlcNAcylation of the Notch1 intracellular domain promote stiffness-resistance and chordoma recurrence.
Chengjie Lian, Lei Liu
- Po4_3.12 Expression and therapeutic potential of CDK11 in chordoma.
Xianzhe Liu, Francis Hornicek, Zhenfeng Duan
- Po4_3.13 Decreased EZH2 expression impairs mitosis and cell cycle process through noncanonical mechanisms in senescent NPMSCs: Based on RNA-seq and CUT&Tag.
Zeta Ma, Zhen Tan, Jianrui Zheng, Deli Wang, Mohammed Saeed, Ruairí MacNiocaill, Wad Abdulla, Wisal Elryah, Swetha Ganesh
- Po4_3.16 Tocopherol attenuates IVDD by inhibiting ferroptosis in nucleus pulposus mesenchymal stem cells.
Zhigang Peng, Jianrui Zheng, Zhen Tan, Gensen Ye, Deli Wang
- Po4_3.17 Mechanisms of macrophage polarization toward M1 inhibition and delay of hormonal femoral head necrosis by EZH2 inhibitors through H3K27me3 modulation of SOCS3/TLR4 signalin
Zhen Tan, Jianrui Zheng, Zhigang Peng, Gensen Ye, Deli Wang

Po4_3.18 EZH2 regulates the NPMSC senescence via cGAS/STING signaling pathway through H3K27me3 and alleviates.
Zhen Tan, Jianrui Zheng, Zetao Ma, Deli Wang

POSTERS

A Forum Po5



A Forum - Po5

1. Clinical

- Po5_1.04 Reevaluating Patient Isolation for Post-Operative Infections: a scoping review.
Laura Bessems, Baixing Chen, Jolien Onsea, Annette Schuermans, Willem-Jan Metsemakers
- Po5_1.08 Polyacrylamide Hydrogel For Knee Osteoarthritis: 5-Year Results From A Prospective Study.
Henning Bliddal, Jannie Beier, Andreas Hartkopp, Philip Conaghan, Marius Henriksen

- Po5_1.09 Rehabilitation And Functional Outcomes In Oncological Patients Treated With Megaprosthesis Reconstruction: A Systematic Review.
Filip Brzeszczyński, Michał Karpiński, Marcel Brzeszczyński, Oktawiusz Bończak, David Hamilton
- Po5_1.10 Evaluation of the Clinical Robotic-Assisted Total Hip Arthroplasty: A Meta-
Meta-Analysis of Systematic Reviews and Meta-Analyses.
Josue Calderon, Jose Moreno, Diego Rincon
- Po5_1.11 Mechanical failure after primary internal fixation of unstable ankle
fractures – a retrospective observational study.
Pengchi Chen, Nicholas Heinz, Nathan Ng, Sam Molyneux, Tom Carter,
Anish Amin
- Po5_1.15 Safety and Accuracy of Percutaneous Osteotomy and Intramedullary
Nailing Compared to Open Osteotomy with Plate Fixation in Femoral
Derotational Surgery – a randomized controlled trial".
Anders Grønseth, Terje Terjesen, Joachim Horn
- Po5_1.16 Inverse relationship between femoral lateralization and neck-shaft angle
is a joint event after intramedullary nailing of per trochanteric fractures.
Wei Hao, Long Fang, Yongjie Lin
- Po5_1.18 Mid-Term Results of The Modified Bereiter Trochleoplasty for patients with
recurrent patellofemoral instability due to severe trochlear dysplasia: The
Oswestry Experience.
Rakan Kabariti, Nikhil Sharma, Andrew George, Andrew Barnett
- Po5_1.19 Incidence and Diagnostic Modalities used to detect Soft Tissue Knee
injuries associated with fractures of the tibial plateau: A systematic
review.
Rakan Kabariti
- Po5_1.23 Ventilation Plaster As a Unique Way to Overcome Cutaneous Problems
Associated During and Post Plaster Removal.
Shivam Mehra, Kamal Mehra, Nindiya Mehra, Sachin Kale
- Po5_1.24 Data Insights on the Risks of Local Heat and Massage in Gouty Arthritis
Treatment.
Shivam Mehra, Sachin Kale, Nindiya Mehra, Kamal Mehra, Bharat
Manchanda
- Po5_1.25 Atypical Presentation of Gout: Idiopathic Retrocalcaneal Pain in 400
Patients.
Shivam Mehra, Nindiya Mehra, Arvind Vatkar, Bharat Manchanda
- Po5_1.26 Prevalence and Clinical Characteristics of Gout in Premenopausal and
Postmenopausal Females: A Comparative Study.
Nindiya Mehra, Smruti Kale, Shivam Mehra, Sachin Kale, Kamal Mehra
- Po5_1.27 Investigating the effects of inflammatory factors on joint tissues using
near-infrared (NIR) spectroscopy on explant culture medium.

Nithin Sadeesh, Fatemeh Safari, Zhen Li, Adriaan Gebraad, Ervin Nippolainen, Susanna Miettinen, Sibylle Grad, Isaac Afara

- Po5_1.29 Autonomic dysfunction with sympathetic dominance in patients with late-stage osteoarthritis recovered one year after total knee arthroplasty. Rebecca Sohn, Tina Assar, Marco Brenneis, Sebastian Braun, Frank Zaucke, Georg Pongratz, Zsuzsa Jenei-Lanzl
- Po5_1.30 Does intramedullary nailing through open growth plates cause harm? A scoping review. Maria Tirta, Søren Kold, Ali Yalcinkaya, Jan Rölfig, Ole Rahbek
- Po5_1.32 Geometric Modeling of Forearm Rotation for Subject-Specific Clinical Applications. V. Tran, Wee Leow, Andy Yew, Joyce Koh, Tet Howe
- Po5_1.33 "FengChao" Titanium Plate for Acromioclavicular and Coracoclavicular Ligament Reconstruction in the Treatment of Acromioclavicular Joint Dislocation. Yuchen Wang, Weizhong Yu, Wenke Zhu, Chuan Jia
- Po5_1.37 Impact Of Short Tibial Length On The Development Of Knee Osteoarthritis. Xingquan Xu, Shuyu Yuan, Qing Jiang
- Po5_1.40 The effect of femoral positioning deviation from the Schöttle point on graft tension in medial patellofemoral ligament reconstruction. Shaojie Yang, Xingquan Xu, QING Jiang
- Po5_1.41 Comparison of hip abductor muscle composition and its age-related alterations between the affected and the contralateral hip joints in female patients with unilateral osteoarthritis of the hip. Tadashi Yasuda, Sadaki Mitsuzawa, Shinnosuke Yamashita, Yoshihiro Tsukamoto, Hisataka Takeuchi, Satoshi Ota, Eijiro Onishi
- Po5_1.45 Total hip arthroplasty induced bullous pemphigoid with subsequent prosthetic joint infection: a case report and review of the literature. Nadim Naim Rodriguez, Marc Saudan, Placido Bartolone
- Po5_1.47 Effects of Total Hip Arthroplasty for Secondary Coxarthrosis Due to Developmental Dysplasia of the Hip on the Knee Joint. Muhammed Yusuf Afacan, Mahmut Gökem Gürçınar, Cumhuri Deniz Davulcu, Mehmet Can Ünlü, Gökhan Kaynak
- Po5_1.48 Bone biomarkers and radiographic segmental weight bearing OA diagnostic scores as biomarkers for canine OA management. Joel Alves, Eva Schnabl-Feichter, Deborah Mason

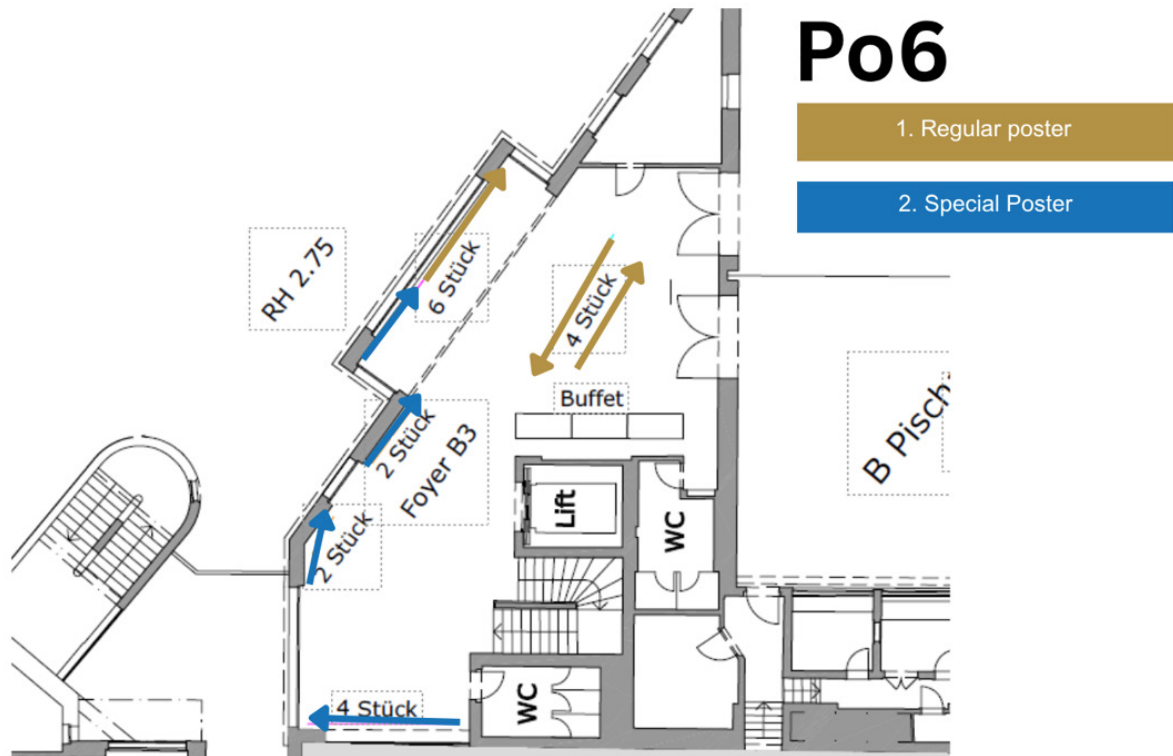
2. Preclinical

- Po5_2.01 Translational osteochondral repair in a minipig model.
Pieter Berger, Marina Maréchal, Luis Mendes, Janne Vleminckx, Johan Lammens, Hendrik Delport, Frank Luyten, Liesbet Geris
- Po5_2.02 Influence of different distraction regimes on femoral bone regeneration in a rat model.
Katrin Bundkirchen, Jan Ramge, Stefan Lienenklaus, Emmanouil Liodakis, Claudia Neunaber
- Po5_2.03 Anti-RANKL treatment attenuates sarcopenia via modulating mitochondria and macrophage infiltration.
Wing-Hoi Cheung, Can Cui, Ronald Man Yeung Wong, Ning Zhang
- Po5_2.04 The Role of the Gut-Bone-Brain Axis in Degenerative Shoulder Diseases: Mechanisms and Implication.
Yishu Fan, Yuchen He
- Po5_2.05 The effect of rotational guided growth with flexible tethers on the distal femoral bone. An experimental study in a porcine model.
Ahmed Halloum, Maria Tirta, Søren Kold, Shima Gholinezhad, Jan Rölting, John Rasmussen, Ahmed Abood, Ole Rahbek
- Po5_2.06 Influence of fixation methods on macrophage expression and inflammatory cytokines in induced membranes during the Masquelet technique: A comparison of plate and interlocking intramedullary nail fixation in a mouse model.
Yota Kaneko, Hiroaki Minehara, Tatsuru Sonobe, Takahiro Seki, Takuya Kameda, Miho Sekiguchi, Takashi Matsushita, Yoshihiro Matsumoto
- Po5_2.07 Investigating magnesium's role on murine bone in obese condition.
Kristina Kaufmann, Melina Amor, Begüm Okutan, Annelie-Martina Weinberg, Nicole Sommer
- Po5_2.09 Triamcinolone Hexacetonide: Time- and Dose-Dependent Balancing Between MMPs and TIMPs in OA-Driven Synovial Inflammation.
Chen Liang, Marie Weeber, Rosa Riester, Frank Eisler, Sandra Frantz, Christian Walter, Marina Danalache
- Po5_2.10 Piperlongumine mediates amelioration of OA via inhibition of chondrocyte senescence and inflammation.
Nindiya Mehra, Arijit Bhattacharjee, Saptomee Chakraborty, Dharendra Katti
- Po5_2.11 Reducing pin track infections by using implants with different coatings and antibiotic release.
Preslav Penev, Kristian Ivanov, Miroslav Raykov, Konstantin Ganchev, Milena Boshkova, Fintan Moriarty, Boyko Gueorguiev

- Po5_2.13 ACLT + pMMx surgery successfully induces post-traumatic osteoarthritis in sheep.
Julie Uerlings, Juliane Grisart, Fanny Hontoir, Hak Bae Choi, Dae Kyong Kim, Ji Min Jang, Hyun Jung Ha, Jean-Michel Vandeweerdt, Melanie Uebelhoer
- Po5_2.14 Clinical, biomechanical, histopathological and imaging characterization of an ovine large femoral bone defect to investigate new treatment strategies.
Claudia Zindl, Ivan Zderic, Anas Datoussaid, Dirk Nehrbass, Malvina Orkoulou, Elias Panagiotopoulos, Zeiter Stephan
- Po5_2.15 A nociceptor predictive model of patient reported pain.
Ryan Jones, Deborah Masin

POSTERS

Pischa/Parsenn Foyer



Foyer B1 / B2

Po6

1. CAOS Regular Poster

- Po6_1.01 Small Implants in knee replacement: Patellofemoral and Uni-Compartmental Replacement.
Norberto Confalonieri, Alessio Maione and Pietro Simone Randelli
- Po6_1.02 Development of a Statistical Shape Model of the Zygomatic-Maxillary Complex as Input to Plate Design Optimization.
Zuzanna Posluszna, Ruud Schreurs, Leander Dubois, Malte Asseln and Gabrielle Tuijthof
- Po6_1.03 Stochastic Optimization based Design of C-Arm Calibration Phantoms.
Peter Zhang, Amandine Gout, Youyang Shen, Philipp Frnstahl and Hooman Esfandiari
- Po6_1.04 Concurrently Intra- and Extra-Articular Corrective Osteotomy for Malunion after Distal Radius Fractures with a Patient-Matched Surgical Guide and Plate: A Case Report.

Hiroki Kondo, Ryoya Shiode, Satoshi Miyamura, Arisa Kazui, Natsuki Yamamoto, Tasuku Miyake, Toru Iwahashi, Hiroyuki Tanaka, Tsuyoshi Murase, Seiji Okada and Kunihiro Oka

- Po6_1.05 8 Years of Shoulder Arthroplasty Planning and Navigation, a Planning Habits Retrospective Study.
François Boux de Casson, Amaury Jung, Sandrine Polakovic and Josie Elwell
- Po6_1.06 Towards Deployable Implants: Conceptual Designs of a Novel Deployable Interposition Wrist Implant Using Origami, Scissor, And Sliding Block Mechanisms.
Mathijs Boksebeld, Jasper Leverink, Mark Flinkert, Izadyar Tamadon, Ali Ramezani, Nico Verdonshot, Gabriëlle Tuijthof and Malte Asseln
- Po6_1.07 Accuracy of ApolloHipX – A Novel System that Integrates CT-based Preoperative Planning with Intra-operative Fluoroscopy in THA.
Christopher Plaskos, Moritz Ehlke, Jevan Arulampalam, Whisper Grayson, Linden Bromwich, Jim Pierrepont, Jacob Haynes, Eric Slotkin, Arjun Saxena and Nicholas Brown
- Po6_1.08 A study of bone strength of patella after total knee arthroplasty.
Kunihiko Watamori, Kazunori Hino, Tomofumi Kinoshita, Takashi Tuda, Tatsuhiko Kutsuna and Masaki Takao
- Po6_1.09 Reproducibility of a new device for robotic assisted TKA surgery.
Domenico Alesi, Vito Gaetano Rinaldi, Tosca Cerasoli, Davide Valente, Giulio Maria Marcheggiani Muccioli and Stefano Zaffagnini
- Po6_1.10 Patient & Surgeon Specific Automated THA Component Selection using Machine Learning.
Gerard Smith, Linden Bromwich, Christopher Plaskos, Jim Pierrepont, Joseph Kavolus and Nicholas Brow
- Po6_1.11 Navigated Tibia First Total Knee Arthroplasty Using a Ligament Tensioning Device, Clinical Results at 1Y Follow-up.
François Boux de Casson, Laurent Angibaud and Omar Naji
- Po6_1.12 Direct repair of spondylolysis using O-arm navigation.
Shintaro Yamaoka, Yusuke Murakami, Hiroshi Misaki, Masayuki Hino and Masaki Takao

2. CAOS special Poster

- Po6_2.01 Effect of age, sex, height, ethnicity, and femoral bowing on the anatomical fitting of the LCP Distal Femur plate.
Beat Schmutz, Minh Tri Phan, Jeremy Pople, Bertha Ching Wai Lam, Eden Schoofs, Jacelle Warren, Jaimi Conlon, Hiroaki Minehara, Kevin Tetsworth and Michael Schuetz
- Po6_2.02 Garden classification of femoral neck fracture using deep-learning algorithm.
Chul-Ho Kim, Jin Yeob Park and Ji Wan Kim
- Po6_2.03 Preoperative knee flexion muscle strength predicts postoperative daily activity immediately after total knee arthroplasty.
Tomofumi Kinoshita, Tatsuhiko Kutsuna, Kunihiro Watamori, Takashi Tsuda, Yusuke Horita, Kazunori Hino and Masaki Takao
- Po6_2.04 Evaluating Intraoperative Dynamic Hip-Knee-Ankle Angle Under Controlled Load During Navigated Total Knee Arthroplasty.
Prudhvi Tej Chinimilli, Laurent Angibaud, Amaury Jung and James Huddleston
- Po6_2.05 Open-Access 3D Bone Shape Databases in Orthopedics: An Unmet Need?
Seyed Hamidreza Alavi, Nico Verdonshot, Gabriëlle Tuijthof and Malte Asseln
- Po6_2.06 Computer-simulated corrective osteotomy for malunion after distal radius fracture normalizes bone density distribution in the subchondral radius.
Tasuku Miyake, Satoshi Miyamura, Ryoya Shiode, Natsuki Yamamoto, Hiroki Kondo, Toru Iwahashi, Hiroyuki Tanaka, Tsuyoshi Murase, Seiji Okada and Kunihiro Oka
- Po6_2.07 Surgical outcomes of arthroscopic osteophyte debridement for elbow osteoarthritis using a navigation system.
Ryoya Shiode, Satoshi Miyamura, Tasuku Miyake, Hiroki Kondo, Arisa Kazui, Natsuki Yamamoto, Toru Iwahashi, Hiroyuki Tanaka, Tsuyoshi Murase, Seiji Okada and Kunihiro Oka
- Po6_2.08 Automatic Segmentation of Forearm Bones Using Deep Learning Approaches.
Théo Aguilar Vidal, Robin Cremese, Remy Winter, Isa Costantini, Thibault Poujade, Jean-Baptiste Masson and Marc-Olivier Gauci

- Po6_2.09 When Navigating TKA, Tibia 1st Workflow Improves Functional Results Relative to Femur 1st Workflow, at 2Y Follow-up.
Cyril Hamad, Gérard Giordano, Laurent Angibaud and François Boux de Casson
- Po6_2.10 3D assessment of the hip joint of a patient with diffuse idiopathic skeletal hyperostosis (DISH) based on CT image
Ryosuke Nishimura, Yusuke Murakami, Kohei Kono, Tatsuhiko Kutsuna, Naohiko Mashima and Masaki Takao

POSTERS