



Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-LB176 Late Breaking Poster Session 1

Poster No. 2041

A Senescence-targeting And Activatable Nir-ii Theranostic Nanoparticle For Photodynamic Therapy Of Degenerative Tendinopathy In Rats

Zitian Zheng; Hongjie Huang; Jianquan Wang

Poster No. 2042

Hybrid Chondrocyte Biomembranes For Targeted And Efficient Delivery Of Sirt6 Activators For Osteoarthritis

Aditi Tata; Yiting Song; Sushant Prajapati; Zachary Varrenti; Brian Diekman; Jonathan F. Lovell; Ramkumar T. Annamalai

Poster No. 2043

Hybprinter-sam For Functionally Graded Tissue Engineering Constructs With Patterned Biochemical Signals

Yunzhi Peter Yang; Jiannan Li; Carolyn Kim

Poster No. 2044

Photo-induced Surface Charge Activates L-type Calcium Channels In Neutrophils To Regulate The Osteogenic Microenvironment On Titanium Implants

Chuan Yin; Yongqiang Hao; Zehao Jing; Teng Zhang

Poster No. 2045

Fetuin-assisted Calcium Phosphate Hybridization Enhances Mineralization In Turkey Tendon For 3d Printed Titanium Implant Integration

Yongxin Mai; Hsuan-Yu Chen; Zhang Wei-Zhe; Samuel E. Broida; Chunfeng Zhao

Poster No. 2046

Influence Of Calcium Sulfate On Macrophage Polarization

Julianne Guercio; Ty Gregory; Richard Harkrider; John Carleton; Matthew Scott; Jessica Rivera

Poster No. 2047

Scaffold Synergy: Boosting Bone Healing With A Dynamic Duo Of Sirna And Roxadustat

Areonna Schreiber; Kaelyn L. Gasvoda; Asghar Rezaei; Xifeng Liu; Lichun Lu

Poster No. 2048

Design And Fabrication Of 3d-printed Gyroid Architectures For Intervertebral Disc Replacement

Jan Mussler; Joerg Lienhard; Hagen Schmal; Bernd Rolauuffs; Michael Seidenstuecker

Poster No. 2049

Developing Biomimetic Anisotropic Bioceramic Scaffolds Through Computer-aided Design And 3d Printing For Bone Tissue Regeneration

Jizhuo Chen; Min Wang

Poster No. 2050

Engineering Large Meniscal Tissues Via 3D-Printed Multipart Molds

Alysse T. DeFoe; Arkodip Mandal; Seth J. Ack; Jason A. Burdick

Poster No. 2051

Development Of Adaptive, Cell-based Fuzzy Logic To Predict Bone-tendon Ingrowth On Gradient Scaffolds

Sam E. Winston; Nick Serio; Jacob Janicki; Melissa Willis; Steven Dow; Lynn Pezzanite; Kirk C. McGilvray

Poster No. 2052

3D-Printed Composite Scaffolds For Customised Bone Defect Reconstruction In Low Osteogenic Environment: In Vitro Analysis

Brigita De Vega; Craig H. Gerrand; Ashleigh S. Boyd; Deepak M. Kalaskar

Poster No. 2053

Kartogenin And BSA-MnO₂ Nanoparticles Co-delivered Via Hydrogel Promote Chondrogenesis And Cartilage Defect Healing

Wenyu Jiang

Poster No. 2054

Dorsal Root Ganglion Neuro-glial Sensitization To Mechanical Flow Contributes To Osteoarthritis Pain

Giulia M. DiRaimo; Susan McNamara; Marcia Urban-Maldonado; Sylvia O. Suadicani; David C. Spray; Mia M. Thi

Poster No. 2055

Anxiety, Depression, And SSRI Use In Patients With Chronic Bone Diseases

Sophia Caputo; Hannah Dieterle; Edward Fox

Poster No. 2056

Metabolomic Profiling Reveals Taurine Downregulation And Histamine Enrichment In Bone Of A Mouse Model Of Gorham-stout Disease

Edward Son; Aidan Kraan; Michael DiSabato; Ernesto Solorzano; Mitchell Bailey; Hakem Altawil; Alhussain Ojaym; Fayez Safadi

Poster No. 2057

Tibial Cortical Bone Remodeling Appears Evident Eight Weeks After Achilles Tenectomy In Rabbits

Adam Kositsky; Petri Paakkari; Dustin L. Crouch; David E. Anderson; Petri Tanska; Rami K. Korhonen; Mikael J. Turunen

Poster No. 2058

Dual Deletion Of Hypoxia Inducible Factor-1a And -2a Protects Against Age-related Cortical Bone Loss

Adriana P. Pantoja; Sarah V. Mendoza; Deepa K. Muruges; Gabriela G. Loots; Damian C. Genetos; Clare E. Yellowley

Poster No. 2059

Cxcl9 Neutralizing Antibody Promotes Fracture Repair In Aged Mice; Downregulation Of Cxcl12 Contributes To Enhanced Bone Repair

Shagun Prabhu; Matthew Wan; Justin S. King; Anne M. Delany; Archana Sanjay

Poster No. 2060

Salt Inducible Kinase (SIK) Inhibition Induces Chondrogenesis During Fracture Repair In A Mouse Model

Mark Bubnovich; Ezgi Aydin; Marc Wein; Ugur Ayturk

Poster No. 2026A

Hox Gene Expression Regulates The Osteogenic Maturation Of Pre-Osteoblast Cells

Jeffrey N. Carey; Erin A. Mukai; Feini Qu

Poster No. 2061

Post-operative Complications In Open Tibial Shaft Fractures In Type 2 Diabetic Patients

Vinay Bandiatmakur

Poster No. 2062

Inhibition Of CGRP-CLR Pathway On Bone Fracture Healing

Ying Tang; Sanja Novak; Ivo Kalajzic

Poster No. 2062A

Osteoactivin Plays A Novel Role In Autophagy-mediated Bone Homeostasis

Varun Raja; Zack Oatley; Fatima Jaber; Fayez Safadi

Poster No. 2063

Inhibition Of Dot1L Histone Methyltransferase Expands Bone Injury-responsive Cxcl12⁺ Skeletal Progenitors

Marta Stetsiv; Sakinah Abdulsalam; Drew Dauphinee; Kerry Cobb; Archana Sanjay; Rosa Guzzo

Poster No. 2064

Are Follow-up Radiographs Necessary In The Treatment Of Nonoperative Pediatric Clavicle Fractures?

Tessa DeCicco; Kedan Mack; Olivia Grande; Sonja Pavlesen; Michael Ferrick

Poster No. 2065

Biophysical Regulation Of Composite Musculoskeletal Tissue Regeneration

Catherine Nguyen; Cole A. DeForest; Feini Qu

Poster No. 2066

Integration Of Proteomics And Intact N-glycoproteomics reveals the Mechanisms Underlying Bmscosteogenesis in The Context Of Fracture Hematoma

Chuan Yin; Fushan Hou

Poster No. 2067

Mg²⁺-driven Glycolytic-mitochondrial Coupling In Macrophage Promotes Periosteal Regeneration

Bingyang Dai; Keyu Meng; Cheng Dong; Jiankun Xu; Ling Qin

Poster No. 2068

Bridging The Gap: A 3d Mechanoregulation Framework Revealing The Spatial Dynamics Of Bone Healing

Ahmad Hedayatzadeh Razavi; Elizabeth Vickery; Alireza Mirahmadi; Shubham Laiwala; Nazanin Nafisi; Arthur Klujian; Matus Vician; Ani Jelalian; Ara Nazarian; Edward Rodriguez

Poster No. 2069

Cell Adhesion Phase Separation And Force Remodeling Heterogeneity Modulate Nuclear Spatial Force-sensing Mechanobiology On Microarrays

Chuan Yin; Yongtao Wang; Yang Liu

Poster No. 2070

Local Co-delivery Of BMP2 And Clodronate Liposome For Treatment Of Juvenile Femoral Head Osteonecrosis

Chi Ma; Ningning Lei; Takuya Usami; Yinshi Ren; Harry Kim

Poster No. 20270A

Factors Influencing Surgical Reduction And Age-related Impact On Final Angulation In Pediatric Both-bone Forearm Fractures

Joseph Werenski; Courtney A. Heitmiller; Antonio Lobao; Michael Flood; Gregory Iovanel; Gregory Iovanel; John McDonald; Andrew Bratsman; Patrick Curtin; Samuel Rice; Mark Kraus

Poster No. 2071

Microct Comparison Of Two Different Marrow Stimulation Techniques In The Horse

Olivia M. Swiber; Marina Santos; Madeline Boyes; Mahsa Karimi; Fereshteh Ahadi; Erik Erslund; Julie Engiles; Mark Grinstaff; Brian Snyder; Michael Albro; Li-Hsin Han; Thomas Schaer; John T. Lawrence; Mads Bergholt; Darko Stefanovski

Poster No. 2072

Articular Cartilage T₁-relaxation Time Changes Precede Alterations In Mechanical Properties In A Rat Model Of Diet-induced Obesity

Rasmus K. Hiltunen; Antti Aarnio; Jaqueline Lourdes Rios; Walter Herzog; Heikki Kröger; Mikael J. Turunen; Mikko A.J. Finnila; Mikko J. Nissi; Juuso T.J. Honkanen; Petri Tanska

Poster No. 2073

Tgf-β-mediated Arthrofibrosis Following Septic Arthritis In A Porcine Stifle Model

Seongjue Ahn; Veridiana Nadruz; Katherine Chope; Bor-Lin Huang; Youssef Abdellatif; Henry Brisebois; Michael Albro; Mark Grinstaff; Brian Snyder; Thomas Schaer

Poster No. 2074

Expression Of Inflammatory And Fibrotic Markers Of The Hoffa's Fat Pad In Knee Osteoarthritis

Domenico Franco; Chilan Bou Ghosson Leite; Xiaomeng You; Sebastian Schmidt; Nicole Krabb; Cale Jacobs; Julia Charles; Christian Lattermann

Poster No. 2075

Lineage Contribution Of Grem1-positive Cells To The Maintenance And Regeneration Of Articular Cartilage

Satoru Sakurai; Shigeru Miyaki; Yimiti Dilimulati; Tomoyuki Nakasa; Nobuo Adachi

Poster No. 2076

Characterizing Synovial Fluid 17 β -Estradiol And Its Influence On Cartilage Development In A Human Cartilage Microphysiological System

Cora M. Ferguson; Nataliia Shchotkina; Sophia Foerster; Mira Schoeberlein; Brad Wilkins; Nick J. Willett; Gabriella C.J. Lindberg

Poster No. 2077

Sulfated Glycosaminoglycan (gag)-mimetics For The Repair Of Osteochondral Defects

Omar Alheib

Poster No. 2078

Acute Transcriptomic Response Of Synovium And Dorsal Root Ganglia To Joint Injury

Michael D. Newton; Lai Wang; Lindsey Lammlin; Scarlet Howser; Danny Nguyen; Henry Dai; Anne-Marie Malfait; Rachel E. Miller; Tristan Maerz

Poster No. 2079

Optimization Of Live-cell Calcium Imaging To Visualize Dredd-induced Morphological Changes In Chondrocytes

Brenna K. Ellis; Christopher Price

Poster No. 2080

Multiscale In-slico Examination Of The Biomechanics Of Cartilage Under Gender-driven Composition

Malek Adouni; Yasin Dhaher

Poster No. 2081

Interaction Between Erk And Retinoic Acid Signaling In The Regulation Of COL10A1-expressing Cartilage-forming Potential Of Hpsc-derived Chondroprogenitors

Kiminari Kataoka; Johnny Huard; Naoki Nakayama

Poster No. 2082

Restoration Of Dynamic Mechanical Properties Of Cartilage By Methacrylated Hyaluronic Acid (HAMA)

Amélie Dufeil; Ali Ahmadi; James L. Martin Robinson; Erin Shapiro; Andrew Speirs; Andrew Harris; Irina Garces; Jos Malda; Eng Kuan Moo

Poster No. 2083

Articular Cartilage Protection Via IGF-I Targeted Fluorescent Silica Nanoparticles

Avdresh Vermani; Aiyana Fortin; Ulrich B. Wiesner; Lawrence Bonassar

Poster No. 2084

Mid-term Outcomes For Treatment Of Full-thickness Acetabular Chondral Flaps With Bone Marrow Aspirate Concentrate Versus Microfracture During Hip Arthroscopy

Jackson Woodrow; Brandon Allen; Rachel Poutre; Rishi Earla; Jeffrey Mun; Stephen Gillinov; Bilal Siddiq; Scott Martin

Poster No. 2085

Azimplacel Modulates Synoviocyte And Chondrocyte Inflammation In Vitro

Katrina A. Harmon; Kelly A. Kimmerling; Katie C. Mowry

Poster No. 2086

Development Of A 3D In Vitro Model Of Osteoarthritic Cartilage For Screening Sirna-Loaded Polymeric Nanoparticles

Phillip A. Hernandez; Sophie G. Biegel; Kenneth J. Weekes; Robert E. Guldborg; Danielle S.W. Benoit

Poster No. 2087

Optimizing Elastin-collagen Peptide Nanoparticle Fluorescent Labeling For Improved Particle-organelle Colocalization Using Super-resolution Microscopy

Jenna M. Taylor; Ann Thomas; Shashika Gammanchiralage; Kristi Kiick; Christopher Price

Poster No. 2088

Does Combination Antidiabetic Therapy Improve Outcomes After Total Joint Arthroplasty?

Ali Rteil; Rebecca Luft; Farid Amirouche

Poster No. 2089

Assessing The Interobserver Reliability Of The 2018 Ao/ota Fracture Classification System For Long Bone Fractures

Timothy Keeley; Daniel Theng; Tim Wu; Daniel Rohde; Meir Marmor

Poster No. 2090

Development Of A Porcine Model Of Posterior Thoracic Tether-induced Thoracic Insufficiency Syndrome

Klaus Hopster; Jerrienne Brandly; Carly Ciociola; Agathe Guillemet; Brian Snyder; Patrick Cahill; Thomas Schaer

Poster No. 2091

Sex-based Differences In Outcomes Following Bankart Repair

Katie M. Zehner; Joshua G. Sanchez; Julian Smith-Voudouris; Mitchell J. Christiansen; Mary K Mulcahey; Jonathan N. Grauer

Poster No. 2092

Orthopaedic Surgery Outcomes In Native Hawaiian And Pacific Islander Populations Compared To Other Racial/ethnic Groups In California

George K.I. Nakahara; Coleen Sabatini; Sachin Umrao; Thomas Peterson

Poster No. 2093

Using The Empatica Sensor To Characterize Postoperative Pain And Opioid Response

Hailey N. Johnson; Daniel Rhode; Lynn Freimanis; Mike Morimoto; Shaheryar Asad; Rada Savic; Mier Marmor

Poster No. 2094

Leveraging Grip Strength And Sociodemographic Data To Predict Pain And Function Prognoses In Lower Extremity Amputees

Samuel Zverev; Samara Moll; Victoria Comunale; Aurora Scotti; Christina Moawad; Jacques Hacquebord

Poster No. 2095

Late-Stage Phase 2 Clinical Safety And Efficacy Data Of Intradiscal Injections Of Hypoxic Cultured Mesenchymal Stem Cells: Study Update

Francisco Silva; Jason Lipetz

Poster No. 2096

Effect Of Teach-back Communication On Patient Satisfaction In Musculoskeletal Outpatient Visits:a Randomized Controlled Trial

Diba Atar; Nandini Sarkar; Hayes Stancliff; Lakshaye Anand; Sophia Caputo; Ami L. DeWaters; Samik Banerjee

Poster No. 2097

Machine Learning-Derived Predictive Risk Factors For Early Failure After Lumbar Spine Surgery: A Systematic Review And Standardized Model Framework

Oluwatomisin Enitan; Ayobami Ogunsola; Surendra Batukdeo; Stephen Yeboah

Poster No. 2098

Analyzing Corticosteroid Injection Configuration To Optimize Outcomes In De Quervain's Tenosynovitis: A Systematic Review, Meta-analysis, And Meta-regression Of Randomized Controlled Trials

Suhas Parise; Pushti Shah; Andrew Bloh; Isabel Herzog; Irfan Ahmed; Michael Vosbikian

Poster No. 2099

Systematic Review And Meta-analyses Of Radiographic Spinal Fusion Rate: Static Versus Dynamic Plates With Bone Grafts In 1-, 2- And 3-level Anterior Cervical Decompression And Fusion (acdf) Procedures

Jonathan Lin; Vincent Roy; Edith Otalike; Joel Gagnier; Parham Rasoulinejad; Parham Rasoulinejad; Irene Yang

Poster No. 2100

Cancellous Versus Corticocancellous Bone Grafting For Scaphoid Fracture Nonunion: A Systematic Review And Meta-analysis With Meta-regression

Suhas Parise; Arianna Valenti; Roman Duchnycz; Isabel Herzog; Michael Vosbikian; Irfan Ahmed

Poster No. 2101

Impact Of Demographic And Socioeconomic Disparities On Diagnosis And Outcomes In Metastatic Long Bone Disease: A Systematic Review

Sasha Balkaran; Shadman Kazi; Nidhi Mahadevan; Felasfa Wodajo; Aditya Maheshwari; MSTS Skeletal Metastases Committee MSTS Skeletal Metastases Committee

Poster No. 2102

Meta-analysis Of Treatment Outcomes For Distal Radius Fractures

Ki Woong Yoon; Jiayong Liu; Martin Skie

Poster No. 2103

Assessment Of Diversity, Equity, And Inclusion Content On Orthopedic Surgery Residency Program Websites And Instagram Accounts

Raven Hollis; Shragvi Balaji; Bassem Darwish; Nia Hammett; Abdullah Chandasir; Sai Unnam; Alejandra Marquez; Alaina Durden; James Carson

Poster No. 2104

Engaging Students From Conflict Regions In Orthopaedic Research: A Needs-finding Study Informing A Global Access Initiative (gai)

Masa Mustafa Walid Najjar

Poster No. 2105

Hispanic Representation And Match Outcomes In Orthopedic Surgery: An Analysis Of Nrmr Data

Matthew Montani; Victor Poalasin; Michael Vosbikian; Kathleen Beebe

Poster No. 2106

Correlation Between Talar Bone Mineral Density And Talar Component Subsidence After Total Ankle Arthroplasty

Masamune Kamachi; Noriyuki Kanzaki; Tetsuya Yamamoto; Shohei Sano; Yuta Nakanishi; Kyohei Nishida; Kanto Nagai; Yuichi Hoshino; Ryosuke Kuroda

Poster No. 2107

Ultrasound Demonstrates High Sensitivity For Detecting Ankle Syndesmosis Injuries

Ria Tilve; Daniel Rohde; Dana Hazem; Zodina Beine; Jamieson O'Marr; Mark Xu; Meir Marmor

Poster No. 2108

Patient-reported Outcomes In Ankle Arthritis: Short-term Benefits Of Injections Versus Long-term Improvements After Arthroplasty

Yazin Hindosh; Stone El Attrache; Zachary Shih; Daniel Latt

Poster No. 2109

Osteochondral Lesions Of The Talus Are Common But Not Associated With Functional Impairment In Community-dwelling Elderly Women: A Population-based Cross-sectional Study

Jisoo Lee; Hee Soo Han; Kyoung Min Lee

Poster No. 2110

Outcomes Of Internal Brace Augmentation Alone Versus Broström Repair With Internal Brace For Chronic Lateral Ankle Instability: A Retrospective Comparative Study

Stephen Gauta; Vu Bui; Clayton Maschhoff; Kevin Yoon; Andrew Rosenbaum

Poster No. 2111

Comparing Patient Reported Outcomes And Complications Following Open Versus Minimally Invasive Double And Triple Arthrodesis For Rigid Flatfoot Deformity: A Retrospective Analysis

Preston Harrison; Paolo Fiore; Sarah Hall Kiriluk; Eren Sakarcan; Lance Schacht; Alice Montagna; Tyler Gonzalez; Ettore Vulcano

Poster No. 2112

Role Of Hox Family Transcription Factors In Regulating Hand Osteoarthritis Genetic Risk

Jayla Whittaker; Hicham Drissi; Pallavi Bhattaram

Poster No. 2112A

Compression Relief Test (CRT) As A Marker Of Severe Carpal Tunnel Syndrome

Madeline M. Labor; Andre Ivy

Poster No. 2113

Vascularized Vs Non Vascularized Bone Grafting For Scaphoid Nonunion: Real World Outcomes From A Single Center Cohort

Matthew Montani; David Ahn; Michael Vosbikian; Irfan Ahmed

Poster No. 2114

Efficacy Of Injectable Calcuim Composite Bone Substitute Augmentation For Osteoporotic Intertrochanteric Fractures : A Prospective Case-control Study

Suenghwan Jo; Chae Hun Lee; Hyeong Tae Kim; Min Jeong Choi; Gwui Cheol Kim; Eun Ju Jin

Poster No. 2115

Proposed Symptom-Avoidance Strategies In Femoroacetabular Impingement Syndrome Identified Through 3D Shape-kinematic Correlates

Seth J. Kussow; Jared L. Zitnay; Rich J. Lisonbee; Stephen K. Aoki; Travis G. Maak; Andrew E. Anderson

Poster No. 2116

Effect Of Postoperative Weight Change On Patient-reported Outcomes Following Hip Arthroscopy

Rachel Poutre; Jackson Woodrow; Rishi Earla; Jeffrey Mun; Stephen Gillinov; Bilal Siddiq; Scott Martin

Poster No. 2117

Withdrawn

Poster No. 2118

Five-year Outcomes Comparing Short And Long Stems Used With Metaphyseal Cones In Revision Total Knee Arthroplasty

Emily Hampp; Sarah Shi; Filesha Haniff; Marissa Puccio; David Markel; Kyle Swanson

Poster No. 2119

Patients With Low-back Pain Have Worse Hip-specific And General Functional Recovery Following Total Hip Arthroplasty

Aidan J. Foley; Jonathan Varcados; Karim Khattab; Patricia Zheng; Thomas Vail; Claudio Diaz Ledezma; Jeannie Bailey

Poster No. 2120

Surgical Site Complications After Revision Total Hip Or Knee Arthroplasty: A Prospective Study Of A Single Use Negative Pressure Wound Therapy System In A High-risk Cohort

Philip Huang; Jennifer O'Connell; Liis Teene; John Timmons

Poster No. 2121

National Trends In Primary And Revision THA And TKA Market Concentration At The Surgeon Level: A National Analysis From 2013-2023

Steven G. Persaud; Alexander Kucherina; Karlos Zepeda; Carmelo Burgio; Andrew Salib; Jonathan M. Vigdorichik; Eytan Debbi

Poster No. 2122

Real-time Ph Monitoring In A Large Animal Model Of The Peri-prosthetic Wound Environment

Olivia M. Swiber; Rachel Butler; Asia Winslow; Megan Seraydarian; Christopher Snyder; Antonia Chen; Noreen Hickock; Thomas Schaer; Caleb Durst

Poster No. 2123

Association Between Peripheral Artery Disease And Prosthetic Joint Infection After Total Knee Arthroplasty: A Systematic Review And Meta-analysis

Jose L. Millet-Herrera; Ermilo Echeverria-Ortegon; Mario C. Torres-Chavez

Poster No. 2124

Calcium Sulfate Void-filling Does Not Prevent Fibrosis And Reduces Fixation Strength In A Mouse Model Of Failed Osseointegration

Alexander Alexandrov; Anastasia Oktarina; Nandaraj Taye; Mathias Bostrom; Xu Yang

Poster No. 2125

Sensitivity Of Cementless Tibial Fixation To Varus And Slope Malalignment: A Biomechanical Micromotion Study

Eric M. Cohen; Gabriel Makar; Paul Ulrich; Miguel A. Diaz; Peter Simon; Steven T. Lyons

Poster No. 2126

A Biomechanical Evaluation Of Patient-specific Flanged Acetabular Components: A Computational Model

Louise O'Connor; Friedrich Boettner; Jason Blevins; Jose Rodriguez; Joseph Lipman; Fernando Quevedo Gonzalez; Mathias Bostrom; Timothy Wright; Peter Sculco

Poster No. 2127

Combining Robotic Intraoperative Parameters And Preoperative Kinematics To Predict Post-total Knee Arthroplasty Dynamic Varus-valgus Alignment

Sébastien Lustig; Jean Baltzer; Alix Cagnin; Julien Erard; Laurence Cheze; Nicola Hagemester; Alex Fuentes; Cécile Batailler

Poster No. 2128

Automated Coronal Plane Alignment Of The Knee Classification Using Artificial Intelligence For Pre- And Postoperative Radiographs

Jazzmhine Oconer; Michael S. Kim; Haiyue Jin; Kylan Soriano; Chanon Chantaduly; Ryan DiGiovanni; Russell Stitzlein; Steven Yang; Peter Chang; Peter Hsiue

Poster No. 2129

THA Software System Comparing Outputs From AI To Human Operators

Andrew Hudson; Brittany Marshall; Scott Leestma; Rodrigo Diaz

Poster No. 2130

Spatial Analysis Of Articular Cartilage In MR Knee Images Through The Development Of A Two-Channel Template

Matt Dausch; Caroline Lisee; Hyunwook Lee; Brian Pietrosimone; David Lalush

Poster No. 2131

Multiphoton Microscopy For The Study Of Osteocytes In Bone

Samantha Z. Bratcher; Christopher B. Schaffer; Karl J. Lewis

Poster No. 2132

Investigating The Role Of Immune Checkpoint Protein TIM-3 On Macrophage Function In Bone Infection

Ashleigh Barrett; Chloe Kraft; Yuer Han; Himanshu Megwhani; Katya McDonald; Gowrishankar Muthukrishnan

Poster No. 2133

Efficacy Of Prophylactic Citrate-based Aseptic Lavage In Preventing Surgical Site Infections In Extremity Fracture Surgery: A Single-surgeon Experience

Allen A. Champagne; Emily Harman; Jacob Torrey; John Twomey-Kozak; Thorsten M. Seyler; Malcolm R. DeBaun

Poster No. 2134

Evaluating The Effects Of Bromelain On MC3T3-E1 Pre-Osteoblast Differentiation And Cytotoxicity In Vitro

Emily M. Lubag; Ty L. Gregory; Richard Harkrider; Julianne Guercio; John Carleton; Matthew Scott; Jessica C. Rivera

Poster No. 2135

Examining A Common Error In Surgical Site Preparation Of The Upper Extremity

Toni Hahn; Madeline Labor; Jason Paek; Andre Ivy

Poster No. 2136

Effects Of Bromelain On Fibroblast Viability And Myofibroblastogenesis

Richard C. Harkrider; Ty Gregory; Julianne Guercio; John Carleton; Matthew Scott; Jessica Rivera

Poster No. 2137

Activation Of Integrated Stress Response In The Nucleus Pulposus Results In Disc Degeneration

Xiaoting Zhang; Xiaonan Dong; Shuang Guo; Zhijia Tan; Charles Cheng; Wilson Chan; Andrea Ng; Jason Pui Ying Cheung; Danny Chan; Kathryn Cheah

Poster No. 2138

AF Injury Induces Netrin-1/DCC-associated Nerve Ingrowth Resistant To Combined Etanercept And Duloxetine Treatment In A Rat Discogenic Pain Model

Harsev Singh; Denise Iliff; Alon Lai; Jonathan Huang; Damien M. Laudier; James C. Iatridis

Poster No. 2139

Prolonged Heavy Metal Exposure Triggers Cellular Senescence And Mechanical Allodynia In The Lower Back

Michael Grant

Poster No. 2140

Human Disc-on-a-chip: Microfluidic And Hydrogel Systems To Model Neuroinflammation Underlying Intervertebral Disc Degeneration

Izzat Zulkiflee; Zaim Razak; Sobeerat Adekola; Harry Revill; Andrew Daly; Abhay Pandit; Isma Liza Mohd Isa

Poster No. 2141

The Effect Of Force Based Manipulation On Intervertebral Disc And Dorsal Root Ganglion Structure/function In A Mouse Model Of Discogenic Back Pain

Khady Diop; Jacob Barnes; Yuzhang Liu; Jake Klausner; Adam Smith; Jordin Marshall; Benjamin Walter; Nathan Schilaty; Nathaniel Bates; Sara McBride-Gagy; Devina Purmessur (Walter)

Poster No. 2142

Microstructural Maturation Of The Anterior Cruciate Ligament And The Medial Collateral Ligament During The Postnatal Development In Murine

Haruki Tsunogae; Yuna Usami; Riku Saito; Tetsuya Yano; Takanori Kokubun

Poster No. 2143

In Vivo Characterization Of Erythrocyte-mediated Pathology In Hemarthrosis

Howard J. Nicholson; Beth G. Ashinsky; Yuchen Liu; Gabriella C. Bond; Lynette X. Lopez; Peter T. Shyu; Claire P. Pinnie; Sebastián N. Anderson; Aliza Mujahid; Gerard A. Ateshian; X Edward Guo; Nadeen O. Chahine; Clark T. Hung

Poster No. 2144

Inflammatory And Extracellular Matrix Signatures Associated With Pre-operative Knee Stiffness And Post-operative Arthrofibrosis Following Total Knee Arthroplasty In Osteoarthritis Patients

Anne Oerlemans; Izzat Zulkiflee; Kieran Joyce; Catriona Flaherty; Gerard Sheridan; Isma Liza Mohd Isa

Poster No. 2145

Early Intra-articular Oxygen Alteration And Vascular Remodeling In Post-traumatic Osteoarthritis Following ACL Rupture

Jinha Kwon; Xiaohua Gao; Michael Newton; Tristan Maerz; Annemarie Lang

Poster No. 2146

Delayed Anterior Cruciate Ligament Reconstruction Exacerbates Post-traumatic Osteoarthritis And Impairs Knee Motion In A Murine Model Of Anterior Cruciate Ligament Reconstruction

Yuki Suzuki; Tsung-Lin Lee; Paula MP Trinh; Wataru Morita; Hirotaka Iura; Ezgi Aydin; Pavit Suri; Lauren Simonian; Krishna Pedaprolu; Matthew Covello; Sidharth Ranga; Hugo Stern; Julia S. Retzky; Claire D. Eliasberg; Camila B. Carballo; Scott A. Rodeo

Poster No. 2147

Validation Of A Prototype Knee Arthrometer To Gold Standard Arthrometry And Radiographs

Sandra J. Shultz; Elvis Foli; Randy J. Schmitz

Poster No. 2148

Relationships Between MRI-observed Patellar Motion And Knee/Lower-limb Tissue Characteristics In Hypermobile Ehlers-Danlos Patients And Healthy Controls

Carly A. Lockard; Roberto Pineda Guzman; Carson Osmond; Evelyn Bombard; Rwei-yuan Tu; Kaviamuthan Kanakaraju; Mariana E. Kersh; Christina Laukaitis; Bruce M. Damon

Poster No. 2149

Longitudinal Changes In Sagittal Plane Joint Motion Following Acl Injury In Mrl/mpj And C57bl/6j Mouse Strains

Olivia L. Dyer; Elias Jbeily; Gabriela Loots; Blaine Christiansen; Stephanie Cone

Poster No. 2150

Establishment Of A Reproducible Rat Model To Evaluate The Roles Of Synovium And Infrapatellar Fat Pad In Meniscal Injury And Healing

Ming Wang; Ting Li; Chang Lee

Poster No. 2151

Which Poroelastic Material Models Can Represent 3D Strain Of Knee Meniscus Tissue?

John M. Peloquin; Dawn M. Elliott

Poster No. 2152

Malfunction Of All-inside Meniscus Repair Devices And Associated Patient Injury: A Review Of The Manufacturer And User Facility Device Experience Database

Ron Gilat; Tzadok Yona; Bhavya Sheth; Noam Reshef

Poster No. 2153

Extracellular Vesicle-mediated Crosstalk Between Synovial And Cardiac Fibroblasts In Cardiac Fibrosis

Derek Ning; YiRan Li; Ethan Lee; Ke Cheng; Clark Hung

Poster No. 2154

Chronic Alcohol Consumption Increases Pain Hypersensitivity In A Preclinical Model Of Post-traumatic Osteoarthritis Independent Of Structural Changes

Will Owusu; Sarah Chang; Svenja Illien-Junger; Hicham Drissi; Samantha Yeligar; Jarred Kaiser

Poster No. 2155

Accuracy Of Robotic-arm Assisted Reverse Shoulder Arthroplasty

Lawrence J. Crowther; Mark E. Nadzadi

Poster No. 2156

Patient-specific Finite Element Modeling Of Mechanical Forces Within The Scapula Following Reverse Total Shoulder Arthroplasty

Nathan Harward; Kaleb Barker; Zachary Rickmeyer; Ecem Kilic; Lucas H. Timmins; T. Bradley Edwards

Poster No. 2157

Predicting Shoulder Arthroplasty Outcomes: Powered With Ct-based Musculoskeletal Radiomics

Gregory Spangenberg; Caleb Bowyer; Josie Elwell; Christine Allen; François Boux de Casson; William R. Aibinder; Bradley Schoch; Bruno Gobbato; Scott Trenhaile; Anshuman Singh; John Erickson; Hamidreza Rajabzadeh-Oghaz; Christopher Roche

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John M. Abdelshaheed; Rishi Chatterji; Jordan Levy; Garrett Flynn; Casey M. Beleckas; Jonathan C. Levy

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Differences In Pre-operative Computed Tomography Based Radiomic Measurements Of Osteoarthritic Patients With Walch B2/B3 And Walch A1/A2/B1 Glenoids

Josie Elwell; Hamidreza Rajabzadeh-Oghaz; Gregory Spangenberg; William Aibinder; Bradley Schoch; Bruno Gobbato; Scott Trenhaile; Anshuman Singh; John Erickson; Christopher Roche

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Finite Element Analysis Of Glenoid Anchor Insertion Angle To Mitigate Postage Stamp Fracture Risk

Alireza Gholipour; Robert J. Nascimento; Marco T. Di Stefano; Sophia I. Blaine; Blake C. Meza; Ian D. Hutchinson; Augustus D. Mazzocca

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Influence Of Remplissage Anchor Position On Glenohumeral Displacement In Off-track Hill-sachs Lesions: A Cadaveric Biomechanical Study

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3D Disc Asymmetry In Adolescent Idiopathic Scoliosis

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Vitamin D Deficiency Increases Pseudarthrosis And Perioperative Complications After Posterior Spinal Fusion For Adolescent Idiopathic Scoliosis

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How ACL Fibroblasts Sense Slow Growth Elongation Changes With Collagen Fiber Maturation: It's Not All FAK

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The Potential Role Of Sirtuin 3 In Mitochondrial Homeostasis In A Murine Model Of Rotator Cuff Tendinopathy

Xueying Zhang; Jiebo Chen; Jingzhong Zhao

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Rat Plantarflexor Tendon Biomechanics And Composition Are Minimally Affected By 12 Weeks Of High-Volume Loading

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Development Of A Delivery Method For Human Subacromial Bursa Tissue Using Alginate-based Hydrogels

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Osteomorphs In Giant Cell Tumor Of Bone And Osteosarcoma: Secondary Analysis Of Single Cell Rna Sequencing

Tyler Shimabukuro; James Pruneski; Courtney Lavin; Erica Y. Kao; Ashley Aratani; Vedbar Khadka; Sean P Kelly

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Receptor Status And Demographics Linked To Timing Of Spinal Bone Metastasis Surgery In Breast Cancer

Alejandra Marquez; Dion Birhiray; Lorenzo Deveza

Monday, March 30, 2026

10:00 AM - 5:00 PM

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Micellar Delivery Of A Sirt6 Activator Alleviates Dna Damage In Human Chondrocytes

Mingqian He; Jacqueline Shine; Zachary Varrenti; Yiting Song; Jayishnu Roy; Jonathan F. Lovell; Ramkumar T. Annamalai; Brian O. Diekman

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Controlled Delivery Of The Mitochondrial Targeted SPN-15 Peptide For OA Prevention

Hamilton M. Young; Jacl X. Li; Lawrence Bonassar

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Comparison Of Bone Cements Under Dynamic Loading

Antonio Valdevit; Caleb Russell; Frankie Morris

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Substitution Of Hydroxyapatite With A Bioactive Glass-ceramic For Implant Coatings

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Comparison Of Bone Cement Dynamic Performance After Aging

Antonio Valdevit; Caleb Russell; Frankie Morris

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Antimicrobial Activity Of Bioactive Glass-ceramic Powder For Coating Titanium

Anna Keller; Timothy Ringeisen; Steven Leonhardt; Kendra Chan; Charlene White-Williams; Aylvin Dias

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Optimizing 3d Transfection Of Sirna Into Ligament Fibroblasts For Temporal Silencing Of Piezo1

Tristan Strayer; Jenny Puetzer

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In Vitro Evaluation Of A Hydrolyzed Collagen On Fibroblasts And Macrophages

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A Rat Dorsal Midline Lumbar Fusion Model For Evaluating Osteoconductive Shape Memory Scaffold-guided Fusion

Samuel W. Rice; Antonio Lobao; Rahul Nisal; Jordan Skelly; Michael Stauff; Jie Song

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Modeling And Design Of Functionally Graded Tpm Scaffolds For Hydrogel-based Osteochondral Tissue Engineering

Mitra Diyanati; Virginia Ferguson; Stephanie Bryant; Bob McLeod; Boyuan Liu

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Computer-aided Design, Simulation And Manufacture Of Voronoi Structure-based Bioceramic Scaffolds For Bone Tissue Regeneration

Jizhuo Chen; Min Wang

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Murine Model Of Cardiometabolic HFpEF Displays Decreased Bone Density And Worsened Bone Morphology

Matthew C. Scott; Heather Quiariarte; Timothy D. Allerton

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Core Decompression With Bone Marrow Aspirate Concentrate In An Equine Model Of Subchondral Osteonecrosis: A Translational Platform For Regenerative Orthopedics

Grigorios Maleas; Mahmoud M. Mageed; Kristyna Hargitaiova

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Epidemiology And Regional Variability In Knee Bone Mineral Density: Application Of A CT-based Classification

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Effect Of Recombinant Human Growth Hormone On Adolescent Idiopathic Scoliosis

Chris J. Lee; Albert H. Lee; Rachel Shi; Jonathan N. Grauer

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Preliminary Development Of Juvenile Mouse Model For Post-TBI Aseptic Osteonecrosis

Halle Tisovic; Karina Bruce; Dylan Marques; Olga Liaudanskaya; Matthew Robson; John Martin

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Cerclage Wire For Affordable Plate Fixation In Murine Critical Sized Defect Models

Kaitlyn Cimney; Kell Sprangel; Zachary Osborn; Khady Diop; Jordin Marshall; Allison Smith; Adam Kling; Carmen Quatman; Daemeon Nicolaou; J Tracy Watson; Angela Collins; Kevin Wolf; Ryan Brune; Benjamin Walter; Sara McBride-Gagy

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Implantable Sensors Detect Bone Healing In Sheep Mid-diaphyseal Femoral Fractures

Gerardo Figueroa Romero; Melisa Kafali; Kevin A. Kasper; David Gonzales; Maximo Mondragon; Stephany R. Maldonado; Gabriela Maldonado; Vaishnavi Narayanan; Ginelle Maldonado; Gayatri Kaimal; Philipp Gutruf; David Margolis

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Estimating Tibial Strength At Common Bone Stress Injury Sites In Female Athletes

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Progel-tanshinone (P-Tan) Enhances Fracture Healing In A Glucocorticoid-induced Delayed Healing Model

Shabnam Arash; Jie Rong; Yangwei Deng; Salma Althobaiti; Artyom Marchenko; Shanshan Liu; Dong Wang

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Mechanical Loading Increases Osteocyte Uptake And Retention Of Fluorescent Nanoparticles In Vivo

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Analysis Of Subchondral Insufficiency Fracture Of The Knee Associated With Meniscal Tear Using A Mouse Osteoporotic Model

Naosuke Nagata; Takehiko Matsushita; Koji Nukuto; Yuta Nakanishi; Tetsuya Yamamoto; Kyohei Nishida; Kanto Nagai; Noriyuki Kanzaki; Yuichi Hoshino; Ryosuke Kuroda

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Coronal Knee Alignment Is Directly Related To Knee Medial-to-lateral Bone Density Ratio

Craig E. Klinger; Robert E. Bilodeau; Maximilian M. Mueller; Peter K. Sculco; Scott A. Rodeo; Elizabeth B. Gausden; Hollis G. Potter; Emily M. Stein; William M. Ricci; Derek G. Hansen

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A Comparison Of Extraction Methods For Measuring Tca Metabolites In Porcine And Murine Cortical Bone

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Temporal Proteomic Profiling Of Post-traumatic Osteoarthritis Identifies The Optimal Therapeutic Window For Anti-inflammatory Therapy

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Massively Parallel Reporter Assays In Primary Human Chondrocytes Reveal Novel Regulatory Variants In Osteoarthritis

Samantha Stuppy; Emma Klein; Jacqueline Shine; Jonathan Rosen; Richard Loeser; Douglas Phanstiel; Brian Diekman

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Plasmacytoid Dendritic Cells Contribute To The Establishment Of Periarticular Fibrosis In The SHLI Model.

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Betamethasone Chondrotoxicity In Hip Cartilage Explants From Symptomatic Femoral Acetabular Impingement

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Comparison Of Long-term Survivorship Of Total Hip Arthroplasty Using A Quadrangular Vs. Ultra-short Neck-preserving Stem Via The Direct Anterior Approach

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Jared Garfinkle; Seth Spicer; Christopher Haydel

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Jacob D. Kodra; Ankit Choudhury; Dylan Wiese; David M. King

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Kevin Abbruzzese; Ilya Borukhov; Michael Barkachy; Jarett Michaelson; Sally LiArno

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