



2026 ANNUAL MEETING
DRIVING RESEARCH TO FUEL DISCOVERY
March 27 – 31, 2026 • Charlotte, North Carolina



Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-001 Knee - Diagnostics

Poster No. 327

Non-destructive Raman Spectroscopic Serial Monitoring Of Cartilage ECM In Response To Disease Modifying OA Drugs

Dev R. Mehrotra; Lillian R. Chung; Erik E. Erslund; Thomas P. Schaer; Mark W. Grinstaff; Brian D. Snyder; Mads S. Bergholt; Michael B. Albro

Poster No. 328

Day 14 Marks The Histological Transition From Acute To Chronic Periprosthetic Joint Infection In A Murine Arthroplasty Model

Mohammed Hammad; Christina Chao; Andrew Thomson; Mathias Bostrom; Alberto Carli

Poster No. 329

Key Determinants Of Knee Adduction Moment In Patients With Knee Osteoarthritis During Gait.

Ayako Akiba; Tomoyuki Nakagawa; Yoshinari Sakata; Hiroko Sakamoto; Kengo Harato; Shu Kobayashi; Takeo Nagura; Masaya Nakamura

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PS1-002 Knee - Growth, Development and Aging

Poster No. 330

Investigating Age-Related Movement And Avoidance Patterns In Aging Models Of OA

Kaitlin M. Southern; Janak Gaire; Folly Patterson; Yenisel Cruz-Almeida; Alejandro Almarza; Robert M. Caudle; Kyle D. Allen

Poster No. 331

Growth Hormone Antagonism Provides Metabolic And Joint Protection Against Aging Associated OA

Abhijit Sukul; Siqi Ren; Hardy Wang; Huanhuan Liu; John J. Kopchick; Shouan Zhu

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PS1-003 Knee - Injury and Healing

Poster No. 332

Exosomes Secreted By Lrp1+ Ligament-derived Stem Cells Promote Tendon-bone Healing After Acl Reconstruction Via Mir-708-5p/bambi Axis

Hongbin Lu

Poster No. 333

Physical Rehabilitation Modulates Pain, Structural Pathology, And Cytokine Profiles In A Preclinical ACL Rupture Model

Nicholas M. Pancheri; Emily Sverdrup; Nisha Kyathsandra; Jake Heinonen; Joshua Miller; Samantha Watson; Kaitlyn Link; Sanique South; Angela Lin; Robert Guldberg; Nick Willett

Poster No. 334

Regional Variations In Tibiofemoral Cartilage Thickness 10+ Years After ACL Reconstruction

Crystal J. Murray; Janine Molino; Ata M. Kiapour; Braden C. Fleming; Jillian E. Beveridge

Poster No. 335

Increased Incidence Of Knee Injuries Following Concussions

Katie M. Zehner; Julian Smith-Voudouris; Joshua G. Sanchez; Jeremy K. Ansah-Twum; Elizabeth C. Gardner; Jonathan N. Grauer

Poster No. 336

Effects Of Quadriceps Strength Recovery In The First Year Following Anterior Cruciate Ligament Reconstruction On Gait Biomechanics

Sergio A. Lemus; Christin Büttner; Liubov Arbeeva; Caroline Lisee; Natália Favoreto; Alex Creighton; Ganesh M. Kamath; Jeffrey Spang; Christopher D. Ingersoll; Samantha Tayne; Joe M. Hart; Troy Blackburn; Brian Pietrosimone

Poster No. 337

Short-term Immobilization And Treadmill Improves Tendon-to-bone Healing In A Murine Model Of Failure Anterior Cruciate Ligament Reconstruction

Yuki Suzuki; Wataru Morita; Matthew Covello; Hirotaka Iura; Paula Mai Phuong Trinh; Ezgi Aydin; Lauren Simonian; Ping-Chun Yeh; Krishna Pedaprolu; Hugo Stern; Julia Retzky; Claire D. Eliasberg; Camila B. Carballo; Scott A. Rodeo

Poster No. 338

OA-associated Pain Sensitivity Is Reduced In OA-protected MRL/MpJ Mice, Partially Mediated By The Gut Microbiome, And Transferable Via Microbiome Transplantation

Gabriella Dyson; Montana Barrett; Nicholas Hanebutt; Aleksander Szymczak; Cindy Miranda Brawner; Pratibha Dube; Elias Cherian; Austin Lopez; Padmaja Mehta-D'souza; Matlock Jeffries

Poster No. 339

Exosome Therapy For Osteoarthritis Prevention In A Novel Turkey Post-traumatic Osteoarthritis Model

Lei Wang; Ramona L. Reisdorf; Margaret Brosig; Chunfeng Zhao

Poster No. 340

Early And Persistent Meniscal Changes Following Acl Surgery

Dominique A. Barnes; Crystal J. Murray; Mohammadreza Movahhedi; Jillian E. Beveridge; Ata Kiapour; Martha M. Murray; Braden C. Fleming

Poster No. 341

Increased Frequency Of Running, Cutting, Deceleration And Pivoting Activities Associates With OA-like Changes To Femoral Bone Shape Following ACLR

Ashley A. Williams; Anthony Gatti; Anoosha Pai S; Jade He; Constance Chu

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PS1-004 Knee - Structure, Function and Mechanics

Poster No. 342

Knee Bracing May Restore Joint Stability In Response To A Valgus Torque In Medial Collateral Ligament Deficient Knees

Luke T. Mattar; Tianyu Chen; Jumpei Inoue; Martin Fagerström; Volker Musahl; Richard E. Debski

Poster No. 343

Knee Extensor Strength Deficits And Their Implications On Multi-joint Gait Support In Osteoarthritic Veterans

Max A. Zawel

Poster No. 344

Anterior Cruciate Ligament Graft Strain Rate, But Not Magnitude, Is Increased During A Hop Landing

Siddharth Yende; John Holtgrewe; Crystal Murray; Janine Molino; Braden Fleming; Jillian Beveridge

Poster No. 345

Can Knee Bracing Prevent Ligamentous Injury? Computational Models Could Be The Key

Luke T. Mattar; Tianyu Chen; Jumpei Inoue; Martin Fagerström; Volker Musahl; Richard E. Debski

Poster No. 346

More Daily Steps And Minutes Spent In Moderate To Vigorous Physical Activity Indicate A Higher Risk Of Cartilage Degeneration Following Anterior Cruciate Ligament Reconstruction

Caroline Lisee; Louise Thoma; Todd Schwartz; Natalia Favoreto; Sergio A. Lemus; Jeffrey Spang; Ganesh M. Kamath; Alex Creighton; Samantha Tayne; Xiaojuan Li; Brian Pietrosimone

Poster No. 347

Effusion Persists At 6 Months After Anterior Cruciate Ligament Reconstruction Without Impacting Gait Biomechanics Or Quadriceps Strength

Jack R. Paradis; Reginald O. Chinweze; Manuel A. Romero-Padron; Jackson R. Gutta; Georgia R. Wimmer; Matthew Tao; Elizabeth Wellsandt

Poster No. 348

Excellent Clinical Outcomes More Than 10 Years After Quadriceps ACL Reconstruction Despite Persistent Individual Side-to-side Differences In Patellofemoral Joint Kinematics

Shu Watanabe; Tom Gale; Kohei Kamada; James Irrgang; Volker Musahl; William Anderst

Poster No. 349

Sex-based Comparison Of Normative Preclinical Mouse Knee Joint Structure-function

Olivia L. Dyer; Ethan J. Stoecker; Alexander J. Broadhurst; Stephanie G. Cone

Poster No. 350

Progressive Cartilage Degradation Following MPFL Reconstruction Based On T1p Relaxation Times For Athletes Vs. Non-athletes

John Elias; Lutul D. Farrow; Paul Saluan; Sercan Tosun; Richard Lartey; Mei Li; Carl Winalski; Xiaojuan Li

Poster No. 351

Strains In The Knee Retinaculum With Anterior And Valgus Knee Loads

William Gamble; Anja Wackerle; Armin Runer; Michael DiNenna; Kayaalp Enes; Michael Smolinski; Mark Carl Miller; Volker Musahl; Patrick Smolinski

Poster No. 352

The Effects Of Visual Disruption On Muscle Activation Strategies During Walking Following Anterior Cruciate Ligament Reconstruction

Alex E. Edison; Tom Birchmeier; Justin Dennis; Brian Pietrosimone; Erik Wikstrom; Adam Kiefer; Shelby Baez; Troy Blackburn

Poster No. 353

Effects Of Remnant Preservation In ACL Reconstruction On Postoperative Rotational Knee Instability And Clinical Outcomes

Kyohei Ota; Masahiro Nozaki; Hiroaki Fukushima; Kensaku Abe; Shunta Hanaki; Makoto Kobayashi; Yusuke Kawanishi; Jiro Kato; Hideki Murakami

Poster No. 354

Uka Femur Component Sizing And Bearing Thickness Affects Ligament Tension At Different Levels

Eik Siggelkow; Michael McBurney; Melinda Coleman; William Jackson; Andrew Price; Andres Troelsen; Marc Bandi

Poster No. 355

Evaluating The Relationship Between Posterior Tibial Slope And Meniscal Thickness In Native Knees

Jakub Gocal; Jayde Powell; William Oetojo; Carlos Eikani; Nicholas Brown; Daniel Schmitt

Poster No. 356

Withdrawn

Poster No. 357

The Development And Implementation Of A Computational Framework To Simulate Patellofemoral Joint Mechanics: Direct Comparisons Between Musculoskeletal Modeling And Finite Element Analysis

Mahmood B. Rashedi; Benjamin B. Wheatley

Poster No. 358

Quadriceps Strength Is Protective Of Knee Joint Bone Mineral Density Following An ACL Reconstruction

Camille C. Johnson; Charles Eisner; Meredith K. Owen; Douglas E. Long; Darren L. Johnson; Christopher Fry; Brian Noehren

Poster No. 359

The Impact Of Osteoarthritis On Joint Line Obliquity (jlo): A Comparison Of Cpak And Jlo Between Patients' End-stage Osteoarthritic And Contralateral Healthy Knee Joints

Brandon Naylor; Charlotte C. Baker; Alex Bradham; Natalie Gresham; Anthony Kamson; Zachary Ricciardelli; Joseph Schwab

Poster No. 360

Factors Influencing Patellofemoral Cartilage Degradation Change Over Time Following Patellar Dislocation

John J. Elias; Cole Shafer; Lutul D. Farrow; Ahmet Hakan Ok; Richard Lartey; Mei Li; Mingrui Yang; Carl Winalski; Xiaojuan Li

Poster No. 361

Cartilage Degradation Associated With Patellofemoral Pain For Adolescents

Aaron M. Lear; Xiaojuan Li; Ahmet Hakan Ok; Richard Lartey; Mei Li; Lutul D. Farrow; John J. Elias

Poster No. 362

Changes In Leg Joint Moments In Response To Altered Vertical Limb Loading During Walking In Individuals With Knee Osteoarthritis

Stephen J. Perle; Elizabeth Bjornsen; Brian G. Pietrosimone; Jason R. Franz

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PS1-005 Knee - Surgical and Non-Surgical Interventions

Poster No. 363

Increasing The Posterior Tibial Slope Lengthens The Collateral Ligaments Without Altering The Cruciate Ligaments Under Two Sets Of Combined Loads

Marc-Olivier St-Pierre; M. Enes Kayaalp; Tianyu Chen; Luke Mattar; Volker Musahl; Richard Debski

Poster No. 364

Optimizing Tibial Tubercle Positioning: A Key Strategy For Reducing Patellar Contact Pressure And Enhancing Knee Joint Stability

Yeseop Park; Jason Koh; Farid Amirouche

Poster No. 365

Two-Year Complication Rates After Tibial Tubercle Osteotomy: Surgical Indication, Concomitant Procedures, And Surgeon Training Have An Impact

Om B. Jahagirdar; Johannes Sieberer; Jonathan N. Grauer; John P. Fulkerson

Poster No. 366

Tranexamic Acid Is Safe And Effective In Revision Knee Arthroplasty For Periprosthetic Joint Infection

Pranit Kumaran; Julian Wier; Sahil Telang; Steven Liu; Jacob Becerra; Jay Lieberman; Nathanael D. Heckmann

Poster No. 367

Which Hinge Is More Bone Conserving? A Comparison Of A Posterior Versus Intercondylar Hinge Mechanism

Oliver Jenner; Emily Hampp; Julia Halligan; Jeremy Gililland; Geoffrey Westrich

Poster No. 368

Effect Of Isolated Acl Reconstruction On Rotational Stability In Acl-injured Knees With Multiple Secondary Stabilizer Injuries

Shunta Hanaki; Hiroaki Fukushima; Kensaku Abe; Kyohei Ota; Makoto Kobayashi; Yusuke Kawanishi; Jiro Kato; Tetsuya Takenaga; Masahito Yoshida; Hideki Murakami; Masahiro Nozaki

Poster No. 369

Withdrawn

Poster No. 370

Inhibition Of The Epigenetic Reader BRD4 Reduces Extracellular Matrix Deposition In An In-Vitro Model For Knee Arthrofibrosis

Mason Carstens; Oliver Dilger; Cole Bothun; Emily Schenk; Benjamin Mallinger; Isabella Helgeson; Hassan Ahad; Adam Pagnano; Mark Morrey; Joaquin Sanchez-Sotelo; Daniel Berry; Roman Thaler; Matthew Abdel

Poster No. 371

Intra-articular Femoral Trauma Induces More Severe Contracture In A Mouse Model Of Knee Stiffness Compared To Extra-articular Immobilization

Mason Carstens; Nils Meissner; Matthew Weintraub; Oksana Pichurin; Oliver Dilger; Cole Bothun; Mark Morrey; Joaquin Sanchez-Sotelo; Daniel Berry; Roman Thaler; Matthew Abdel

Poster No. 372

The TGF- β Neutralizing Antibody 1D11 Reduces Knee Stiffness In Vivo

Matthew Weintraub; Mason Carstens; Nils Meissner; Oksana Pichurin; Mark Morrey; Joaquin Sanchez-Sotelo; Daniel Berry; Roman Thaler; Matthew Abdel

Poster No. 373

Tgf- β Neutralization Therapy And Surgical Posterior Capsule Release Exhibit Similar Efficacy In A Rat Model Of Knee Stiffness

Matthew Weintraub; Mason Carstens; Nils Meissner; Oksana Pichurin; Mark Morrey; Joaquin Sanchez-Sotelo; Daniel Berry; Roman Thaler; Matthew Abdel

Poster No. 374

Changes In Patellar Height Following Isolated Mpfl Reconstruction Is Largely Related To Post-operative Quadriceps Dysfunction

Divesh Sachdev; Cade Smelley; Christopher Song; Daniel Shinn; Nicholas Lemme; Adam Yanke

Poster No. 375

Unintended Distalization Following Anteromedializing Tibial Tubercle Osteotomy With MPFL Reconstruction

Divesh Sachdev; Jay Amin; Cade Smelley; Christopher Song; Daniel Shinn; Nicholas Lemme; Brian Cole; Adam Yanke

Poster No. 376

Distribution Of Cpk (coronal Plane Alignment Of The Knee) Classification Before And After Opening Wedge High Tibial Osteotomy (owhto)

Eichi Ito; Takashi Ishitani; Kuniaki Ikeda; Takeru Iwata; Chuji Hirota; Shuhei Otsuki

Poster No. 377

Surgical Management And Risk Of Osteoarthritis Following Knee Osteochondritis Dissecans: A 20-year Retrospective Analysis

Kaviamuthan Kanakaraju; Royal Shrestha; James X. Liu

Poster No. 378

Knee Arthrodesis Techniques: Comparative Outcomes Of Union And Complication Rates

Anjali Malhotra; Laura Palma; Timothy Damron

Poster No. 379

Aspirin Is Superior To Low-molecular-weight Heparin Following Revision Knee Arthroplasty For Periprosthetic Joint Infection

Julian Wier; Pranit Kumaran; Sahil Telang; McKenzie Culler; Connor Buchannan; Jay Lieberman; Nathanael D. Heckmann

Poster No. 380

Tranexamic Acid Reduces Perioperative Bleeding Complications Following Aseptic Revision Total Knee Arthroplasty: An Analysis Of 51,781 Revision Knees

Pranit Kumaran; Matthew Lim; Ryan Palmer; Sahil Telang; Sagar Telang; Arjun Aron; Jay R. Lieberman; Nathanael D. Heckmann

Poster No. 381

Assessment of the Positional Relationship between Anterior-Posterior Screw and the Popliteal Artery in Open Wedge Distal Tuberosity Osteotomy

Jun Takagaki; Kenjiro Okimura; Tsuto Naoki; Shinjiro Yokota; Takahiro Yamashita; Daisuke Araki

Poster No. 382

Perioperative Outcomes Between Cryoneurolysis Needle Configurations In Total Knee Arthroplasty

Corey Hryc; Hari Surnedi; Gregory Stocks

Poster No. 383

Reliability Of Intra-operative Assessment Of Kinematics Using Robotic-Assisted Tka

Emily Hampp; Azhar Ali; Nicole Szabo; Kevin Abbruzzese; Sarah Shi; Sébastien Lustig; Fares Haddad; Ormonde Mahoney; Michael Mont; Robert Marchand

Saturday, March 28, 2026

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PS1-006 Meniscus - Growth, Development and Aging

Poster No. 384

Meniscus-mimetic Platform Recapitulates Zone- And Age-specific Microenvironmental Effect On MSC Behavior

Se-Hwan Lee; Zizhao Li; Lin Xu; Dokyoon Kim; Robert Mauck; Ali Kiapour; Su Chin Heo

Poster No. 385

Unveiling 3D Neurovascular Dynamics In TMJ Postnatal Development And Degeneration Through Whole Joint Mapping

Jiaxin Chai; Hanmei Dong; Benjamin Kheyfets; Wakana Kitagawa; Aidan Limpic; Dustin Mueller; Yaqian Sun; R. Glenn Hepfer; Brooke Damon; Tong Ye; Mildred Embree; Peng Chen; Hai Yao

Poster No. 386

Evaluation Of Symptomatic Juvenile Discoid Meniscus

Syed Ali; Matthew Brown; Donna Pacicca; Akshaj Ganta; Caroline Dealy

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PS1-007 Meniscus - Injury and Healing

Poster No. 387

Investigation Of Suture Materials On Meniscal Repair In A Rabbit Medial Meniscus Longitudinal Tear Model

Ryuichi Isozaki

Poster No. 388

A Novel Approach To Segmental Meniscus Repair - Can We Improve Biomechanical Performance Of Meniscus Transplants And Reduce The Risk Of Extrusion?

Hisham Omar; Akbar N. Syed; Kevin Landrum; Jacob Sommer; Kevin Shea; Theodore J. Ganley; Michael W. Hast

Poster No. 389

Assessment Of Persistent Meniscal Degeneration And Extrusion In Patients Following Intact Medial Meniscus Posterior Root Tear Repair With 3d T2* Mapping At 7 Tesla

Abdul Wahed Kajabi; Karsten Knutsen; Eassa Hedayati; Collin Steinberger; Lamba Abhinav; Stefan Zbyn; Asif Abul Hassan; Hassan Ahad; Luke Tollefson; Takashi Takahashi; Gregory Metzger; Robert LaPrade; Jutta Ellermann

Poster No. 390

Longitudinal Evaluation Of Meniscal T1p Relaxation Times From 1-2 To 2-3 Years With And Without Applied Load In Patients Following ACL Reconstruction With Meniscal Surgery

Divya Pradip Roy; Sadegh Khodabandeloo; John Ramsdell; Bruce Beynnon; Mathew Failla; Jiming Zhang; Matthew Geeslin; Mickey Krug; Michael DeSarno; Niccolo Fiorentino

Poster No. 391

Inflammatory Crosstalk With Zone-Specific Meniscus ECM-Bound Nanovesicles Promotes Pathological Remodeling

Sung-Han Jo; Se-Hwan Lee; Su Chin Heo

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PS1-008 Meniscus - Structure, Function and Mechanics

Poster No. 392

Float-Ring Implant Reduces Cartilage Contact Pressure After Partial Meniscectomy: A Finite Element Analysis

Go Yamako; Isuru Udayanga; Etsuo Chosa

Poster No. 393

Withdrawn

Poster No. 394

Effect Of Knee Flexion Angle On The Direction And Magnitude Of Tensile Force In Complete Lateral Meniscus Radial Tears: A Porcine Biomechanical Study

Kodai Hamaoka; Tomoaki Kamiya; Kousuke Shiwaku; Kazushi Horita; Yasutoshi Ikeda; Yohei Okada; Hidenori Otsubo; Atsushi Teramoto

Poster No. 395

Age-related Accumulation Of Advanced Glycation End Products And Enzymatic Cross-links In The Human Meniscus

Hiroki Katagiri; Rena Hagiwara; Arakawa Shoutaro; Yusuke Nakagawa; Tomomasa Nakamura; Kunikazu Tsuji; Yoshii Toshitaka; Mitsuru Saito; Hideyuki Koga

Poster No. 396

Meniscus Displacement Following Surgical Repair Or Allograft: A Pilot Study To Establish Methodology

Maelyn Arcodia; Jamie Benson; Nick Scanzera; Dawn Elliott; Alvin Su

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PS1-009 Meniscus - Treatment and Therapeutics

Poster No. 397

Giving The Meniscus Another Chance: Repairing Degenerative Tears In Middle-aged Patients

Dongjin Ryu; Jin Seong Park; Samuel Jaeyoon Won; Dong Seok Kang

Poster No. 398

Clinical Outcomes Of Pullout Repair Combined With Osteochondral Autograft Transplantation For Medial Meniscus Posterior Root Tear With Focal Cartilage Lesion: A Comparative Study With Pullout Repair Alone And Unicompartamental Knee Arthroplasty

Naoki Akura; Yuki Okazaki; Koki Kawada; Keisuke Kintaka; Masanori Tamura; Tsubasa Hasegawa; Toshiki Kohara; Toshifumi Ozaki; Takayuki Furumatsu

Poster No. 399

Longitudinal Serum And Urine Proteomic Signatures Predict Early Cartilage Change In MRI Following Arthroscopic Partial Meniscectomy

Ping-Chun Yeh; Tsung-Lin Lee; Sidharth Ranga; Camila Carballo; David Oliver; Alexandra Henderson; Jack Consolini; Matthew Koff; Suzanne Maher; Hollis Potter; Robert Marx; Scott Rodeo

Poster No. 400

Therapeutic Effect Of Pulsed Electromagnetic Fields In A Mouse Model Of Meniscal Degeneration

Ming Wang; Gang Li; Chang Lee

Poster No. 401

A Transcriptome Analysis Of The Role Of Cartilage Progenitor Derived Extracellular Vesicles In Meniscal Repair

Maxwell D. Chen; Jay Trivedi; Salomi Desai; Sicheng Wen; Chathuraka Jayasuriya

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PS1-010 Hip - Diagnostics

Poster No. 402

Differences In Sacroiliac Joint Stress Distribution Between Patients With Femoroacetabular Impingement And Developmental Dysplasia Of The Hip

Emika Asai; Naomi Kobayashi; Ryo Nagashima; Yohei Yukizawa; Shota Higashihira; Yutaka Inaba

Poster No. 403

The Hip Arthroscopy Index Predictive Score: A Preoperative Tool For Predicting Postoperative Outcomes

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

Poster No. 404

Zona Orbicularis Thickness: Association With Outcomes After Hip Arthroscopy

Srish S. Chenna; Jeffrey S. Mun; Rachel L. Poutre; Brandon J. Allen; Badr M. Badreldin; Eric P. Jones; Stephen M. Gillinov; Bilal S. Siddiq; Jackson G. Woodrow; Rishi P. Earla; Frank J. Simeone; Scott D. Martin

Poster No. 405

Patterns Of Traumatic Injury In Drivers And Passengers Involved In Motorcycle Accidents

Yehuda Masturov; William Hogan; Daniel Altman; Edward Westrick; Gregory Altman; Hammarstedt Jon

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PS1-011 Hip - Growth, Development and Aging

Poster No. 406

Seasonal Variations In SCFE: A Wisconsin-Based Epidemiological Analysis

Carter J.K. White; Xue-Cheng Liu; Scott Van Valin

Poster No. 407

Morphological Predictors Of Internal Rotation In Patients With Hip Dysplasia: A 3D CT Analysis Of Japanese And Caucasian Cohorts

David Liu; Masahiro Suzuki; Mahdi Aghaalkhani; Young-Jo Kim; Mohammadreza Movahhedi; Michael Millis; Fumihiko Yoshimura; Koichi Kinoshita; Takuaki Yamamoto; Ata M. Kiapour

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PS1-012 Hip - Injury and Healing

Poster No. 408

Association Between Decreased Acetabular Bone Mineral Density And Fragility Acetabular Fractures

Hironori Yamane; Hyonmin Choe; Hiroyuki Ike; Akira Morita; Yuta Hieda; Yutaka Inaba

Poster No. 409

Effects Of Anti-sclerostin Antibody In A Rat Model Of Ischemic Osteonecrosis

Shinya Tanaka; Yusuke Osawa; Yasuhiko Takegami; Keiji Otaka; Shiro Imagama

Poster No. 410

Revisions After Proximal Femoral Fracture Fixation—Economic Burdens and Association with Provider Characteristics

Jonah Hebert-Davies; N. Tracy Zheng; Jenny Pahys; Jill Ruppenkamp; Anna Wallace

Poster No. 411

Fixation-specific Modeling Of Age-frailty Interactions To Predict Mortality After Hip Fracture Surgery

Kole P. Joachim; Adrian Lin; Brandon Gettleman; Michael Fice; Christopher Hamad; Ezekiel Dingle; Sumin Jeong; Amanda Perrotta; Othneil Sparks; Alexandra Stavrakis; Alexander Christ

Poster No. 412

Predictors Of Acute Kidney Injury In Older Adults With Extracapsular Hip Fractures

Elizabeth Nocera; Dilan Prasad; Monica DiFiori; Saqib Rehman

Poster No. 413

Tranexamic Acid Is Associated With Reduced Rates Of Postoperative Bleeding Complications Without Increasing Thromboembolic Risk Following Revision Total Hip Arthroplasty

Sahil Telang; Matthew Lim; Ryan C. Palmer; Pranit Kumaran; Sagar Telang; Arjun Aron; Jay R. Lieberman; Nathanael D. Heckmann

Poster No. 414

Wound Complications Following Anterior-Approach Total Hip Arthroplasty

John Green; Cale Dobson; Jacob Elkins

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PS1-013 Hip - Structure, Function and Mechanics

Poster No. 415

Progressive Degenerative Cartilage Changes With Persistence Of Dysplastic Deformity In Rabbit Hips

Douglas C. Fredericks; Dominic JL Rivas; Derek C. Cruse; Emily B. Petersen; Joshua B. Holt; Michael C. Willey; Jessica E. Goetz

Poster No. 416

Multifocal Osteonecrosis As A Severe Form Of Glucocorticoid-induced Osteonecrosis With Distinct Clinical And Proteomic Profiles

Kosuke Arita; Tomohiro Shimizu; Hotaka Ishizu; Yusuke Ohashi; Yutaro Sugawara; Daisuke Takahashi; Norimasa Iwasaki

Poster No. 417

Regional Microdamage Accumulation In Idiopathic Osteonecrosis Of The Femoral Head

Takahiro Negayama; Ken Iwata; Masashi Shimamura; Ryuichi Isozaki; Masakazu Ishikawa

Poster No. 418

Effects Of Bone Deformation On Patient-Specific Finite Element Predictions Of Hip Chondrolabral Mechanics

Luke T. Hudson; Brooklyn L. Vargas; Andrew E. Anderson; Jeffrey A. Weiss

Poster No. 419

Evaluation Of A Simplified Modeling Approach To Predict Strain In The Cartilage And Labrum Of The Hip With Application To Femoroacetabular Impingement Syndrome

Luke T. Hudson; Lindsay L. Schuring; Brooklyn L. Vargas; Jeffrey A. Weiss; Andrew E. Anderson

Poster No. 420

Diffusion MRI To Assess Changes In Muscle Architecture After Cam FAI Surgery

William J. MacDonald; Hannah Traynor; Corey Baron; David Wang; Ryan Degen; Geoffrey Ng

Poster No. 421

Ethnic Differences In Femoral And Acetabular Version In Developmental Dysplasia Of The Hip: A 3D CT-based Comparative Study Of Japanese And Caucasian American Cohorts

David Liu; Masahiro Suzuki; Mahdi Aghaalkhani; Young-Jo Kim; Mohammadreza Movahhedi; Michael Millis; Fumihiko Yoshimura; Koichi Kinoshita; Takuaki Yamamoto; Ata M. Kiapour

Poster No. 422

Safe Zones For Femoral And Combined Version To Preserve Hip Range Of Motion After Periacetabular Osteotomy

Mahdi Aghaalikhani; Masahiro Suzuki; David Liu; Young-Jo Kim; Mohammadreza Movahhedi; Michael Millis; Fumihiro Yoshimura; Koichi Kinoshita; Takuaki Yamamoto; Ata M. Kiapour

Poster No. 423

Altered Muscle Synergies In Cam FAI To Maintain Spinopelvic Stability During The Squat Task

Etienne H.J. Joulin; Mohamad El Fateh Shatila; Trevor B. Birmingham; Ryan M. Degen; K.C. Geoffrey Ng

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PS1-014 Hip - Surgical and Non-Surgical Interventions

Poster No. 424

Notch Acetabular Angle As An Intraoperative Landmark For Indication Of Acetabular Anteversion In Total Hip Arthroplasty

Masaaki Maruyama

Poster No. 425

Comparative Efficacy Of Awake Prone Positioning Combined With Standardized Nursing Care And Standardized Nursing Care In The Prevention Of Early Postoperative Pulmonary Complications In Elderly Patients With Hip Fracture

Chuwei Tian; Liu Shi; Yucheng Gao; Yunfeng Rui

Poster No. 426

Patients Undergoing Hip Arthroscopy With Prophylactic Losartan Demonstrate Similar Short-term Outcomes To Matched Controls: A Propensity Matched Analysis

Lucas Y. Kim; Andrew Schab; Michael S. Lee; Philip Stevenson; Andrew E. Jimenez

Poster No. 427

Subsidence And Clinical Outcomes Of A Cementless, Triple Tapered Femoral Stem In Total Hip Arthroplasty: A Minimum Two-year Follow-up

Brandon K. Couch; Allyson N. Pfeil; Joshua Taylor; Ecem Kilic; Corey F. Hryc; Ugonna N. Ihekweazu

Poster No. 428

Tranexamic Use Is Associated With Lower Rates Of Bleeding Complications But Not Transfusions In Revision Total Hip Arthroplasty For Periprosthetic Joint Infection: Is Underdosing To Blame?

Sahil Telang; Julian Wier; Pranit Kumaran; Steven Liu; Jacob Becerra; Jay Lieberman; Nathanael D. Heckmann

Poster No. 429

Aspirin Utilization Is Associated With Lower Rates Of Transfusion Compared To Low-molecular-weight Heparin Following Revision Total Hip Arthroplasty For Periprosthetic Joint Infection

Sahil Telang; Julian Wier; Pranit Kumaran; McKenzie Culler; Connor Buchannan; Jay R. Lieberman; Nathanael D. Heckmann

Poster No. 430

Hip Arthroscopy Alone For Salvage Treatment Of Femoroacetabular Impingement And Concomitant Acetabular Dysplasia Has Poor Outcomes: A Comparative Study

Joshua S. Everhart; Allison R. Garden; Ameya V. Belamkar; Joshua T. Finerty; Manuel A. Romero Padron; Nicholas R. Kossoff

Poster No. 432

Cure State Sensing of Polymethylmethacrylate Using a Vibrating Axial Probe

Avonley C. Nguyen

Poster No. 433

Comparative Analysis And Accuracy Of Surgeon- And Prosthesis Manufacturer-generated Radiographic Templates In Total Hip Arthroplasty

Brandon K. Couch; Allyson N. Pfeil; Corey F. Hryc; Robin N. Goytia; Vasilios Mathews

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-015 Tumors - Genetics

Poster No. 434

Mitochondrial Genetic Variation Orchestrates COPZ1 Transcript Heterogeneity And Reveals Telomere-mediated Vulnerabilities In Osteosarcoma

Kole P. Joachim; Adrian Lin; Brandon Gettleman; Christopher Hamad; Amanda Perrotta; Sumin Jeong; Michael Fice; Lauren Wessel; Nicholas Bernthal; Alexander Christ

Poster No. 435

Integrated Single-nucleus Transcriptomic And Epigenomic Profiling Of Giant Cell Tumor Of Bone

Yo Kimura; Yoshiyuki Suehara; Masachika Ikegami; Akihiko Yoshida; Satoshi Kamio; Eisuke Kobayashi; Akira Kawai; Kohsaka Shinji

Poster No. 436

Progression Of Human Osteosarcoma With Altered Ant1/slc25a4 Expression

Shang-You Yang; Bin Ning; Riley Drees; Ying Zhang; Christopher Halphen

Saturday, March 28, 2026

10:00 AM - 5:00 PM

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PS1-016 Tumors - Metastatic

Poster No. 437

Intramedullary Nail Fixation In Metastatic Bone Disease: A Descriptive Institutional Review

Kole P. Joachim; Adrian Lin; Brandon Gettleman; Christopher Hamad; Amanda Perrotta; Sumin Jeong; Michael Fice; Lauren E. Wessel; Nicholas Bernthal; Alexander Christ

Poster No. 438

Examining Mechanobiological Regulation Of Disseminated Prostate Cancer Cells In The Bone Marrow Perivascular Niche

Kimberly Seaman; Yu Sun; Lidan You

Poster No. 439

Clinical Outcomes Of Surgery For Spinal Metastases: A Comparative Study

Sai Prasada Rao K. Manikonda; Kaleb J. Patterson; Caleb Witsken; Lorenzo Deveza

Poster No. 440

Prophylactic Fixation Of Metastatic Lesions In Long Bones Extends Patient Survival

Jawaad Chaudhry; Kyle Sterns; Spencer DeMedal; Edward Fox

Poster No. 441

Preoperative Nutritional Status And Performance Status Predict Postoperative Walking Ability In Patients With Spinal Metastases

Hirokazu Inoue; Hideaki Watanabe; Yasuyuki Shiraishi; Hideaki Sawamura; Ko Hirata; Mitsuya Morita; Katsushi Takeshita

Saturday, March 28, 2026

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PS1-017 Tumors - Primary Tumors

Poster No. 442

Mapping The Tumor Microenvironment Of Chondrosarcoma Using Single-cell And Spatial Proteomic Approaches

Aron Mebrahtu; Vijitha Puviindran; Nicholas Guardino; Jianhong Ou; Eijiro Shimada; Xin Lin; Yarui Diao; Benjamin Alman; Julia Visgauss

Poster No. 443

Reassessing The 8 Cm Rule: Systematic Threshold Testing And Polynomial Modeling Expose The Limits Of Conventional Osteosarcoma Staging

Ezekiel Dingle; Kole Joachim; Othneil Sparks; Adrian Lin; Brandon Gettleman; Christopher Hamad; Michael Fice; Lauren Wessel; Nicholas Bernthal; Alexander Christ

Poster No. 444

Trivariate Spline Modeling Of BMI-Operative Time-Hematocrit Interactions For Transfusion Risk Prediction In Sarcoma Surgery

Kole P. Joachim; Sumin Jeong; Ezekiel Dingle; Brandon Gettleman; Adrian Lin; Christopher Hamad; Michael Fice; Lauren Wessel; Nicholas Bernthal; Alexander Christ

Poster No. 445

County-level Associations Between Airborne Toxicant Emissions And Ewing Sarcoma Diagnosis In The United States

Amanda Perrotta; Kole P. Joachim; Adrian Lin; Brandon Gettleman; Christopher Hamad; Sumin Jeong; Michael Fice; Lauren Wessel; Nicholas Bernthal; Alexander Christ

Poster No. 446

A National Descriptive Analysis Of 729 Internal Hemipelvectomy Patients: Demographics, Complications, And Mortality From A Large-scale Database

Kaleb J. Patterson; Sai Prasada Rao K. Manikonda; Lorenzo Deveza

Poster No. 447

Declining Rates Of Orthopedic Surgery Among Patients With Multiple Myeloma-Associated Skeletal Lesions

Davis T. Hedbany; Cenk Yildirim; Grace Ferri; Nhan Do; Nathanael Fillmore; Timothy A. Damron

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PS1-018 Tumors - Treatment and Therapeutics

Poster No. 448

A Natural Organic Compound "Decursin" Exhibits Antitumor And Renoprotective Effects In Osteosarcoma

Yusei Katsuyama; Ryu Terauchi; Naoki Mizoshiri; Yuki Mori; Seiji Shimomura; Daichi Hayashi; Ryosuke Nishi; Toshiharu Shirai; Osam Mazda; Kenji Takahashi

Poster No. 449

Size-stratified Chemotherapy Effects In Rare Soft Tissue Sarcomas: A Propensity Matched Cohort Analysis

Kole Joachim; Brandon Gettleman; Michael Fice; Adrian Lin; Christopher Hamad; Othneil Sparks; Ezekiel Dingle; Lauren E. Wessel; Nicholas Bernthal; Alexander Christ

Poster No. 450

Optimal Fixation Of 3d-printed Patient-specific Implant For Femoral Replacement In Osteosarcoma

Wonhee Lee; Sunghee Kim; Hyenmin Park; Yong-Jin Yoon; Jong Woong Park

Poster No. 451

Role Of CT-guided Intraoperative Navigation In Pelvic Tumor Resection Surgery

Giuseppe Francesco Papalia; Rocco Caminiti; Enrico Palombo; Simone Otera; Jacopo Baldi; Carmine Zoccali

Poster No. 452

Expression Of Her Family And Effect Of Her2 Inhibitor In Soft Tissue Sarcoma

Hironori Date; Kunihiro Asanuma; Hiroto Yuasa; Yumi Matsuyama; Tomohito Hagi; Tomoki Nakamura; Masahiro Hasegawa

Poster No. 453

Targeting Lcp1-mediated Metastasis In Chondrosarcoma With Oroxylin A

Ava Strohmeyer; Aron Mebrahtu; Caleb Watson; Nicholas Guardino; Ariana Matarangas; Ananya Dutta; Kevin Betsch; Jason Somareli; Benjamin Alman; Julia Visgauss

Saturday, March 28, 2026

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Room #: Hall A

PS1-019 Clinical Research - Big Data Research

Poster No. 454

Association Of Years Duration Of Shift Work And Night Shift Work With Osteoarthritis Risk

Abigail Bridgeman; Farshid Guilak; Erik A. Herzog; Vy Pham; Elizabeth L. Yanik

Poster No. 455

Preoperative Dental Caries Do Not Increase Perioperative Complications, Readmissions, Or Reoperations Following Single-level Posterolateral Lumbar Fusion

Albert H. Lee; Julian Smith-Voudouris; Alexandros Pappajohn; Jonathan N. Grauer

Poster No. 456

Sarcopenia Index Calculated From Blood Tests Reflects Whole Body Skeletal Muscle Mass : Results From Community Health Checkup Using Whole-Body CT

Soshi Hirata; Naoki Okubo; Kazufumi Hisamoto; Takashi Seya; Tsuyoshi Goto; Shuji Nakagawa; Yuji Arai; Kenji Takahashi

Poster No. 457

Diminishing Usage Of Halo-vest Orthoses: Characterization Of Evolving Trends

Albert H. Lee; Rahul H. Jayaram; Jonathan N. Grauer; Raj J. Gala

Poster No. 458

Traumatic Cervical Spine Injury Management: Factors And Trends In The National Trauma Data Bank

Callie Dickinson; Matthew Bratton; Ankur Khanna; Claudia Leonardi; Berje Shammassian; Amit Bhandutia

Poster No. 459

Depression And Antidepressants Not Associated With Increased Perioperative Complications Or Relative Postoperative Opioid Use When Normalized To Preoperative Usage In Posterolateral Lumbar Fusions

Albert H. Lee; Joshua G. Sanchez; Katie M. Zehner; Jonathan N. Grauer

Poster No. 460

Organophosphate Exposure Alters Protein Expression By Equine Adult Multipotent Stromal Cells

Kathryn Ware; Colette Rainey; Aiyanna McGowan; Takashi Taguchi; Mandi Lopez

Poster No. 461

Deep Learning Analysis Of Nis Database On Anterior Cervical Discectomy And Fusion Comorbidity Complications

Vijay Subramanian; Priya Marella; Michael Vives

Poster No. 462

The Effect Of Extended Oral Antibiotic Prophylaxis On Postoperative Outcomes In Total Knee Arthroplasty: A Matched-Cohort Retrospective Analysis

Sagie Haziza; Michael Greenberg; Jack Spagnuola; Roman Duchnycz; Thaddeus Harbaugh; Zuhdi E. Abdo

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Shifts In Surgical Timing And Outcomes In Geriatric Hip Fractures: Insights From The American College Of Surgeon National Trauma Data Bank

Reginald T. A. Conley; Charlotte Lenz; Meir T. Marmor

Poster No. 464

Dual Entrapment Neuropathies As A Near-term Diagnostic Flag For Systemic Amyloidosis: A Retrospective Cohort Study Of 1.4m Patients

Thomas C. Clark; Alexander Palma; Richard Samade

Poster No. 465

Patients With Asthma Are At Increased Odds Of Pulmonary Adverse Events Following Posterior Spinal Fusion For Adolescent Idiopathic Scoliosis

Lucas Y. Kim; Julian Smith-Voudouris; Scott J. Halperin; Jonathan N. Grauer

Poster No. 466

Validation Of Machine Learning Models In Predicting Blood Transfusion Following Simultaneous Bilateral Primary Total Knee Arthroplasty

Muhammad Hamza Ilyas; Oh-Joon Kwon; Pengwei Xiao; William Sampson; Isaiah Freeman; Hahn Kang; Michelle Shimizu; Carlo Mannina; Oh-Jak Kwon; Sina Afzal; Zhijun Li; Margaret Arthur; Young-Min Kwon

Poster No. 467

Methylprednisolone Following Distal Radius Fracture Repair Is Associated With Reduced Opioid Prescriptions But Increased Early Postoperative Complications: A Propensity-matched Analysis

Priyank P. Patel; Sehajvir Singh; Wali U. Pirzada; Simran Shamith; Kimberly Dong; Asif M. Ilyas

Poster No. 468

Short Operative Time Benefits Frail Geriatric Patients With Trochanteric Hip Fractures: Analysis Of National Surgical Quality Improvement Program Datasets 2017-2021

Ari Khalameyzer; Elias Schwartz; Saahil Sandhar; Shayom Debopadhaya; Meir Marmor

Poster No. 469

Surgical Stress And Physiological Reserve: A Novel Framework Predicts Complications And Optimizes Care Pathways In High-energy Femur Fracture Surgery

Sumin Jeong; Kole Joachim; Adrian Lin; Brandon Gettleman; Christopher Hamad; Amanda Perrotta; Ezekiel Dingle; Alexandra Stavrakis; Alexander Christ

Poster No. 470

Automating AO/OTA Coding From Radiology Reports And Resident Descriptions Using Retrieval-augmented Large Language Models

Daniel Theng; Timothy Keeley; Tim Wu; Meir Marmor

Poster No. 471

Disease Modifying Anti-rheumatic Drugs Effects On Total Hip Arthroplasty Outcomes In Patients With Inflammatory Arthropathies

Bryce Hrudka; Bailey Ross; Nigam Sheth; Ahmadreza Nezameslami; Jacob Wilson; Ajay Premkumar

Poster No. 472

Robotic-assisted UKA Is Associated With Worse Outcomes Than Conventional UKA When Performed By High-volume Surgeons

John Slevin

Poster No. 473

Epidemiology, Associated Injuries, And Surgical Intervention Of 255,081 Clavicle Fractures In The United States From 2015-2024

Lauren Rodio; Jeremy Adelstein; Joshua Napora

Poster No. 473A

Carpal Tunnel Syndrome And Other Predictors Of Amyloidosis

Kathryn E. Grabowski; David E. Komatsu; Lawrence C. Hurst

Poster No. 474

Regional Anesthesia In Cubital Tunnel Release Increases Revision Risk And Opioid Demand: A Matched Cohort Study

Majd Mzeihem; John Alvarez; Michael Foy; Diego Barragan Echenique; Alfonso Mejia; Mark H. Gonzalez

Poster No. 475

Does Walant Increase Revision Risk After Cubital Tunnel Release? Insights From A Matched Database Study

Majd Mzeihem; John Alvarez; Michael Foy; Diego Barragan Echenique; Alfonso Mejia; Mark Gonzalez

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Deep Learning And Wearable Sensing Accurately Classify Tendon Loading In Immobilizing Boot Walking

Stanton Godshall; Michelle P. Kwon; Eni Halilaj; Lorraine Boakye; Casey Jo Humbyrd; Josh Baxter

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Comparative Prosthetic Outcomes Of Robotic-Assisted And Conventional Total Hip Arthroplasty In Hip-Spine Syndrome

Ali Rteil; Majd Mzeihem; Marcelline Kemmy; Hristo Piponov; Lalit Puri; Dustin Massel; Farid Amirouche

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Low Dose Radiotherapy For Osteoarthritis: Analysis Of Preliminary Outcomes At Scripps Clinic

Olumide Ojo

Poster No. 479

Artificial Intelligence Assisted Extraction Of Patient-reported Pain Outcomes In Osteoarthritis Using Prompt Engineering Of Large Language Models

Jainesh Doshi; Stephen Batter; Yiyuan Wu; Alice Santilli; Sandhya Kannayiram; Susan Goodman; Bella Mehta

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Room #: Hall A

PS1-020 Clinical Research - Clinical Research Methods

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Optimization Of Synovial Fluid Metabolite Extraction Methods For Untargeted Metabolomics

Belle Anselmo; Avery Welfley; Priyanka Brahmachary; Hope Welhaven; Brian Bothner; Ron K. June

Poster No. 482

Body-worn Inertial Measurement Units Track Knee Flexion Angle With Similar Accuracy To Optical Motion Capture

Ke Song; Josh R. Baxter

Poster No. 483

The Anterior-posterior Balance Of The Cervical Paraspinal Muscles Indropped Head Syndrome And Cervical Spondylotic Myelopathy

Takashi Sono; Takayoshi Shimizu; Koichi Murata; Bungo Otsuki; Shuichi Matsuda

Poster No. 484

The Common Practice Of Relying On Total Shoulder Arthroplasty Icd Procedural Codes For Administrative Database Studies Identifies A Skewed Set Of Cases That Affects Study Results

Anish Raju; Anthony E. Seddio; Wesley Day; Om Jahagirdar; Alexandros Pappajohn; John Slevin; Lee E. Rubin; Kenneth Donohue; Jonathan N. Grauer

Poster No. 485

Evaluating The Predictive Value Of The Risk Assessment And Prediction Tool (RAPT) Score In Trauma Patients Following Arthroplasty: Preliminary Findings

Robin Hu; Pratik Pradhan; Nishant Suneja

Poster No. 486

Preoperative Nutrition Screening Predicts 90-day Surgical Site Infections In Elective Spine Surgery: A Prospective Cohort Study

Pitcherita Anthenor; Phillip Alexeev; Molly Szapkowski; Damon Dabaray; Ryan Snowden

Poster No. 487

Comparing Machine Learning Models To Predict The Development Of Prosthetic Joint Infection In Total Joint Arthroplasty

Adrian Lin; Kole Joachim; Christopher Hamad; Brandon Gettleman; Othneil Sparks; Sumin Jeong; Amanda Perrotta; Ezekiel Dingle; Alexandra Stavrakis; Alexander Christ

Poster No. 488

A Preoperative Nutrition Screening Tool For Detecting Biochemical Malnutrition In Elective Spine Surgery: A Prospective Cohort Study

Pitcherita Anthenor; Phillip Alexeev; Molly Szpakowski; Damon Dabaray; Ryan Snowden

Poster No. 489

Comparative Inquiry Strategies For Improving Patient-reported Outcome Engagement In Orthopedic Surgery

Allyson N. Pfeil; Joshua Taylor; Drake G. LeBrun; Corey F. Hryc

Poster No. 490

Effects Of Anticholinergic Burden On Autonomic Function, Pain, And Physical Impairment In Patients With Knee Osteoarthritis

Zsuzsa Jenei-Lanzl; Rebecca Sohn; Tina Assar; Isabelle Kaufhold; Marco Brenneis; Sebastian Braun; Frank Zaucke; Jérémie Sellam; Alice Courties; Georg Pongratz

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Room #: Hall A

PS1-021 Clinical Research - Health Equity

Poster No. 491

Association Of Insurance Coverage With Management Of Traumatic Pediatric Spinal Fractures

Ryan L. Hellinger; Natalie Blanc; Victoria Hinchberg; Levi Travis; Brian Grottkau

Poster No. 492

Impact Of Cumulative Environmental Effects On Short-term Outcomes For Hip Arthroscopy Patients

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

Poster No. 492A

Quantifying Cost Savings For Low-income Patients At A Free Student-Run Musculoskeletal Clinic - A Preliminary Analysis

Alexander P. Deltchev; Amogh Gadekar; Jenny T. Vy; Mika Baltés; Aarushi Vadhula; Juan Rivera Salva; Ingrid Camelo

Poster No. 493

Post Pandemic Mental And Physical Well-being Have Continued To Decline Among Patients Undergoing Orthopedic Surgery

Zachary A. Trotzky; Ranqing Lan; Olivia Jochl; Patricia Friedmann; Mark Fontana; Catherine H. MacLean; Ernest L. Sink

Poster No. 494

Evaluating Factors Affecting Postoperative Follow-up Compliance In Rural Vs. Non-rural Patients With Hip Fractures At A Single Institution: A Matched Cohort Analysis

Alvin Ouseph; William Chad Elliot; Emeka Odukwu; Brianna Wolkober; Max E. Davis; Cyrus Caroom

Poster No. 495

Impact Of Built Environment On Short-term Outcomes For Hip Arthroscopy Patients

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

Poster No. 496

Investigating Factors Affecting Compliance To Postoperative Follow-up In Rural Patients With Hip Fractures

Alvin Ouseph; Chad Elliott; Emeka Odukwu; Brianna Wolkober; Max E. Davis; Cyrus Caroom

Poster No. 497

Unequal Hands: The Impact Of Insurance On Amputation Rates In Traumatic Hand Injuries

Ryan Dominguez; Alexander Palma; Richard Samade

Poster No. 498

Association Between Area Deprivation Index And Follow-up Attrition After Acl Reconstruction

Joshua Taylor

Poster No. 499

Socioeconomic Differences In Robotic Total Knee Arthroplasty Utilization: Which Patient Populations Are Receiving Technology Assisted Care?

David Dallas-Orr; Tyler Lockwood; Robert Hernandez; Noah Lyndall; Hania Shahzad; Shannon Tse; Safdar Khan; John P. Meehan; Zachary C. Lum

Poster No. 500

Reporting Of Social Determinants Of Health Within Prospective Tibial Fracture Studies

Zodina Beiene; Calvin Wang; David Gendelberg; Ashraf El Naga

Poster No. 501

Patient-Reported Impact Of Arthroplasty On Access To Food, Cooking, Transportation, Work

Haley Cox; Emily Parker; Alejandro Rivera-Vega; Oluwafemi Gbayisomore; David Gibson; Lee Rubin; Ilda Molloy; Daniel Wiznia

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PS1-022 Clinical Research - Observational Studies

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Accuracy Of Additional Bone Resection With Robotic Technology For Tibial Bone Defect Of Severe Varus Knee In Total Knee Arthroplasty With Metal Block Augmentation

Yasushi Oshima; Tokifumi Majima; Makoto Hirao

Poster No. 502A

Quickdash Scores Do Not Differ Between Dominant Vs. Non-dominant Sided Upper Extremity Injuries: A Retrospective Cohort Analysis

Calvin Wang; Maryam Zafar; Julia Fekete; Anirudh Kulkarni; Thomas Doss; Jomar Aryee; David Kirschenbaum; Brian Katt

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Poster No. 504

Fracture Incidence In Women With Polycystic Ovarian Syndrome: A Trinetx Retrospective Cohort Analysis

Tanya Li; Wali U. Pirzada; Ameera Syed; Simran Shamith; Kimberly Dong; Meghan Bishop; Asif M. Ilyas

Poster No. 505

Comparative Analysis Of Back Muscle Strength In Low Back Patients Taking Opioids, Serotonin-reuptake Inhibitors, And Non-steroidal Anti-inflammatory Drugs

Bahar Shahidi; Manei Mohabbatzadeh; Simon S. Schenk; Elsa Sanchez-Lopez; Lara Havandjian; Armin Zavareh; Lissa Taitano; Connor Richards; Kamshad Raiszadeh

Poster No. 506

The Opportunistic Finger Prick: Point-of-care Hemoglobin A1C Testing In The Hand Surgeon's Office To Screen Patients For Undiagnosed Diabetes Mellitus

Chloe Heiting; Sruthi Katakam; Carolina Herrera; Brian Li; Amr Tawfik; Priya Duvvuri; Camille Pinpin; John Nolan; Kate Nellans

Poster No. 507

The Effects Of Modifier-22 On Reimbursement In Total Joint Arthroplasty At A Tertiary Care Center

Michael Marinier; Aline Thiengmany; Victoria C. Tappa; Jacob M. Elkins

Poster No. 508

Vitamin D Deficiency Is Common At The Time Of Fragility Fracture And Can Persist Despite Supplementation: Implications For Correction And Monitoring

Kurt Wilde; Madeleine Gorman-Asal; Marissa Grossi; Leah Kennedy; Robert Korley; Prism Schneider

Poster No. 509

Longitudinal Quality Of Life Outcomes In Children With Legg-calve-perthes Disease Treated With Petrie Casting And Abduction Bracing

Adan De Hoyos; Joonoh Lee; Harry Kim; Chan-Hee Jo

Poster No. 510

Progressive Femoral Bowing And Varus Alignment Over Ten Years After Total Knee Arthroplasty

Shuichi Matsuda; Kohei Nishitani

Poster No. 511

Early Detection Of Acetabular Component Fixation Using Tomosynthesis And Its Association With Preoperative Bone Mineral Density In Cementless Total Hip Arthroplasty.

Ryuichi Sato; Hajime Sugiyama; Yohei Matsushita; Tetsuo Hayama; Mitsuru Saito

Poster No. 512

Etiologies And Trends Of Extremities Amputation: A Ten-year Single Center Experience

Mishari Alanezi

Poster No. 513

Midterm Functional Outcomes Of Periacetabular Osteotomy After Failed Hip Arthroscopy For Symptomatic Acetabular Dysplasia

Olivia M. Jochl; Zachary A. Trozky; Cassidy E. Owens; Danyal H. Nawabi; Ernest L. Sink

Poster No. 514

Prevalence And Predictors Of Post-stroke Spasticity After Mechanical Thrombectomy

Mohamed-Yahia Monawar

Poster No. 515

Psychostimulant Use Is Associated With Increased Risk Of Carpal Tunnel Syndrome In Adults With ADHD

Joseph Bisiani; David E. Komatsu

Poster No. 516

Application Of The Epic Deterioration Index To Predict Postoperative Complications Among Orthopedic Trauma Patients

Alex M. Bouterse; Andrew J. Cabrera; David W. Cheng; Graydon Dietrich; Vahe Yacoubian; Wayne Cheng; Olumide Danisa

Poster No. 517

Foot Structure Changes And Links To Patient-reported Pain Interference During Pregnancy And Postpartum

Michelle Meyers; Devyn Russo; Celeste Durnwald; Casey Humbyrd; Josh Baxter

Poster No. 518

Complicated Superior Labral Injury Concentrates Joint Loading Stress Independently Of Bone Morphology In Developmental Dysplasia Of The Hip: A Multimodality Imaging Study

Yuki Ogawa; Tomohiro Shimizu; Yusuke Ohashi; Yutaro Sugawara; Daisuke Takahashi; Norimasa Iwasaki

Poster No. 519

Factors Influencing Online Patient Reported Ratings Among Adult Reconstructive Surgeons

Kene A. Okafor; Sameer R. Khawaja; Kevin Y. Heo; Joseph D. Lee; Omar Syed; Aly Toure; Brian Zhou; Ajay Premkumar; Jacob M. Wilson

Poster No. 520

Comparison Of Muscle Strength Recovery And Clinical Outcomes After Acl Reconstruction Using Quadriceps Tendon Autograft Between Young And Middle-aged Patients

Shinjiro Yokota; Takahiro Yamashita; Kenjiro Okimura; Daisuke Araki

Poster No. 521

Patient Perceptions And Willingness To Pay For 3D-printed Casts Compared To Traditional Fiberglass Casting

Alexis Watson; Kaviyamuthan Kanakaraju; Michael Chen; Rand Kitanni; Sydni Silverman; Jaime Chen; Thomas Murphy

Poster No. 522

Outpatient TKA And THA: Trends In Volume And Demographics Over Time

Katharine P. Playter; Sophia M. Ly; Sade Olatunbosun; Ruijia Niu; Brian Hollenbeck; Carl Talmo; Eric Smith

Poster No. 524

Comparing Survival To Revision And Reoperation In High-risk Patients Undergoing Distal Femur Replacement With And Without Cones In The Femoral Diaphysis

Alexander Yunke; Charles Stube; Ellen Lutnick; Joseph Kuechle

Poster No. 525

Device-measured Physical Activity And The Risk Of Tendinopathy: A Prospective UK Biobank Cohort Study

Wei Zheng; Qianying Cai; Jiacheng Hu; Yanhao Li; Kai Fu; Shen Liu

Poster No. 526

Feasibility And Efficacy Of Delivering A Mobile-Application-Based Neuromuscular Training Program To High School Athletes: Adherence, Agility, And Single Leg Squat Kinematics

Owen B. Sedransk; Andrew E. Pechstein; Alexandra Archer; Alexandra Henderson; Rita Feder; Charlie Pearle; Daniel Alschuler; Andrew Pearle

Poster No. 527

Hypertension, But Not Normotension, Is Associated With An Age-dependent Decline In Knee Osteoarthritis Pain: An Analysis Of Middle-aged And Older Adults

Carlos J. Cruz; Jaiver A. Tamargo; Muhammad Abbas; Samira Capote; Staud Roland; Burel R. Goodin; Roger B. Fillingim; Yenisel Cruz-Almeida

Poster No. 528

30 Day Readmission Following Orthopaedic Hip & Knee Revision: Analysis Of Patient, Surgical, And "Portal Of Entry" Characteristics

Ryan J. Blake; Vincent K. Melemai; Nicholas Hudock; Benjamin M. Frye; Allison M. Lastinger

Poster No. 529

Morphological Characteristics Of Valgus Knees In The Japanese Population And Simulation Of Around The Knee Osteotomy

Kensaku Abe; Masahiro Nozaki; Hiroaki Fukushima; Shunta Hanaki; Kyohei Ota; Makoto Kobayashi; Yusuke Kawanishi; Jiro Kato; Hideki Murakami

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Room #: Hall A

PS1-023 Clinical Research - Omics, Biomarkers Genetics

Poster No. 530

Genome-wide Association Study Of End-stage Glenohumeral Osteoarthritis

Elizabeth L. Yanik; Vy Pham; Paul Jeffries; Jay D. Keener; Nancy L. Saccone

Poster No. 531

Piezo1 Variants That Reduce Open Channel Probability Are Associated With Familial Osteoarthritis

Mick Jurynek; Ruhma Syeda

Poster No. 532

Assessing Human Articular Cartilage And Osteoarthritis Transcriptome Layer-by-layer

Pakkanpat Pondipornont; Terreill Robertson; Ryan R. Driskell; Iwona M. Driskell; Lawrence J. Bonassar; Arda Gozen; Wenji Dong; Salman O. Matan; Bernard J. Van Wie

Poster No. 533

Cartilage Explant-based High-throughput Screening Identifies Clinically Promising Candidates For Osteoarthritis

Julie Nguyen; Annie Porter; Zugui Zhang; Joseph Fox; Michael Axe; X. Lucas Lu

Poster No. 534

Whole Transcriptome Sequencing Of Bone/cartilage Of Tibia And Meniscus Reveals Altered Lipid Metabolism Through Significant Upregulation Of Leptin And Perilipins In Osteoarthritis Pathology

Priya Kulkarni; Glyn Daniel Palmer; Folly Patterson; Michael Strinden; Muhammad Abbas; Janak Gaire; Robert Dalton; Hayden J. Good; Hernan Prieto; Yenisel Cruz-Almeida; Robert Caudle; Alejandro Almarza; Kyle D. Allen

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PS1-024 Clinical Research - Randomized Studies

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Evaluating Patient Compliance With Woodcast And Thermoplastic Splints After Cmc Arthroplasty

Tantien Nguyen; Victor Hung; Joshua Hancock; Daniel Bailey; Miguel Diaz; Alfred Hess; Michael Doarn

Poster No. 536

Virtual Reality Vs. Standard Training For Femoral Neck Fracture Fixation: A Randomized Controlled Simulation Study

Majd Mzeihem; John Alvarez; Brett Segobiano; Julia Nascimben; Brett Drake; Joseph Karam; Mark Gonzalez

Poster No. 537

Cost-utility Analysis Of Periacetabular Osteotomy Plus Arthroscopy For Hip Dysplasia Compared To Periacetabular Osteotomy Alone

Paul Beaulé; Ariane Parisien; Reza Ojaghi; Kenneth Lukas; Stéphane Poitras; Lisa Masucci; Kednapa Thavorn

Poster No. 538

Impact Of Hip Precautions On Fear And Functional Outcomes In Patients Undergoing Total Hip Arthroplasty: A Randomized Controlled Study

Paul Beaulé; Motahareh Karimjashni; Ariane Parisien; Wade Gofton; Sophie Ba; Stéphane Poitras

Saturday, March 28, 2026

10:00 AM - 5:00 PM

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PS1-025 Clinical Research - Systematic Review / Meta-analyses

Poster No. 539

Forearm Pronation Deformity In Pediatric Cerebral Palsy: A Systematic Review Of Nonsurgical And Surgical Management

Julienne B. Ryland; Sara Rogers; Shray Kumar; Julie B. Samora

Poster No. 540

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Poster No. 541

Use Of The Internal Joint Stabilizer Reduces Need For Medial Approach In Terrible Triad Injuries Of The Elbow: A Meta-Analysis

Caleb A. Casanova; Benjamin Fiedler; Todd Phillips; Eileen Phan; Sameer Khawaja; Mitchell Scott

Poster No. 541A

Criteria For Return To Sport Following Surgery For Femoroacetabular Impingement: A Systematic Review

Sterling L. Cloet; Maclain R. Ridder; Sebastian Villagomez; Justin J. Greiner

Poster No. 542

Clinical Outcomes Of ORIF Versus Acute THA For Posterior Wall Geriatric Acetabulum Fractures: A Systematic Review

Harlene Kaur; Rahul Kumar; Samveda Rukmangadhan; Afshin Anoushiravani; Meir Marmor

Poster No. 543

Comparative Effectiveness Of Ultrasound-guided, Single-port Endoscopic, Dual-port Endoscopic, And Open Carpal Tunnel Release: A Systematic Review

Claire Chaljub; Evan S. Pistone; John Faillace

Poster No. 544

Uncertain Certainty: A Scoping Review Of Grade Use In Systematic Reviews On Arthroplasty For Femoral Neck Fractures

Ashleigh Warner; Holden Husbands; Steven Stagg; Nicholas B. Sajjadi; Brandon Hull

Poster No. 545

Withdrawn

Poster No. 546

Underreporting Of Social Determinants Of Health In Randomized Control Trials Related To Total Hip And Knee Arthroplasty

Michelle Shimizu; Sina Afzal; Isaiah Freeman; Muhammad Hamza Ilyas; Pengwei Xiao; Margaret Arthur; William Sampson; Oh-Jak Kwon; Carlo Mannina; Zhijun Li; Oh-Joon Kwon; Hahn Kwon; Young-Min Kwon

Poster No. 547

Prevalence Of Race, Ethnicity, And Social Determinants Of Health Reporting In Total Joint Arthroplasty Survey-based Studies

Isaiah Freeman; Michelle Shimizu; Muhammad Hamza Ilyas; Sina Afzal; Pengwei Xiao; Carlo Mannina; Oh-Joon Kwon; Hahn Kang; Margaret Arthur; William Sampson; Oh-Jak Kwon; Zhijun Li; Young-Min Kwon

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Comparison Of Automatic Versus Manual Broaching Techniques In Total Hip Arthroplasty: A Systematic Review And Meta-analysis

Ashley Beathrese Salimbangon; Anuj Mehta; Huaqing Zhao; Saqib Rehman

Poster No. 549

Withdrawn

Poster No. 550

Weight-bearing Locomotion Mitigates Knee Post-traumatic Osteoarthritis Progression In Rodents: A Systematic Review And Meta-analysis

Sydni Whitten; Michael Jones; Marin Plemmons; Young Hui Chang; Jarred Kaiser; Liang-Ching Tsai

Poster No. 551

Inconsistent Reporting Of Key Parameters In Robotic-assisted Total Knee Arthroplasty Literature: A Systematic Review

Brandon K. Couch; Allyson N. Pfeil; Corey F. Hryc; Drake G. LeBrun; Ugonna Ihekweazu

Poster No. 552

Ultrasound, Fluoroscopy, Or Landmark Guidance? A Systematic Review Of Accuracy And Patient Outcomes In Hip Osteoarthritis Injections

Waleed El-hassan; Hamza Sidhu; Wahid Masood

Poster No. 553

Incident Or Worsening Spine Disease And Low Back Pain: A Systematic Review Of Longitudinal Studies

Hanadi A. Albadi; Tatiana M. Martin; Lorena E. Juarez; Schuyler Hilton; Jennifer C. Westrick; John T. Martin

Saturday, March 28, 2026

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Room #: Hall A

PS1-026 Hand and Wrist - Biomechanics

Poster No. 554

Comparing Fixation Stability Of Rotationally Unstable Proximal Phalanx Fractures: A Biomechanical Study

Francine Zeng; Jordan Bauer; Rohan Rajan; Rajendra Singh; Lisa Tamburini; Zachary Grace; Tomer Korabelnikov; Craig Rodner

Poster No. 555

Assessing Instability Of Bennett Fractures And Direct Comparison Of Two K-wire Fixation Constructs: A Paired Cadaveric Biomechanical Analysis

Taylor J. Willenbring; Mark A. Miller; Kenneth A. Mann; Frederick W. Werner; Saeed D. Mohammad

Poster No. 556

Active Index Finger Abduction Stabilizes The Thumb Carpometacarpal Joint: An Ultrasonographic Study In Healthy Volunteers

Takuma Naka; Hyonmin Choe; Reina Nakamura; Takahiro Fujimori; Maho Sezaki; Yohei Kusaba; Kazuma Miyatake; Hirokazu Arakawa; Hiroyuki Takashima; Yutaka Inaba

Poster No. 557

Effect Of Tunnels Used For Slil Reconstruction And Osteoporosis On Lunate Mechanical Integrity

Kevin M. Albanese; Mark A. Miller; Christopher N. Benoit; Yesuwa Mayers; Frederick W. Werner

Poster No. 558

Withdrawn

Poster No. 559

Withdrawn

Poster No. 560

Quantitative Evaluation Of Finger Flexor Tendon Gliding Sounds Of Healthy Volunteers Using A Digital Stethoscope

Takanobu Higashi; Atsuyuki Inui; Yutaka Mifune; Kohei Yamaura; Issei Shinohara; Shuya Tanaka; Masaya Kusunose; Yutaka Ehara; Shunsaku Takigami; Shin Osawa; Daiji Nakabayashi; Ryota Wakamatsu; Ryosuke Kuroda

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PS1-027 Hand and Wrist - Imaging

Poster No. 561

Anatomy-aware Regression Modeling Of Distal Radius Morphology For Surgical Planning

Yuichi Yoshii; Tomohiko Inomoto; Yusuke Eda; Reo Asai; Yasukazu Totoki; Akira Ikumi; Takeshi Ogawa

Poster No. 562

Carpal Tunnel Morphological Modeling Using Ultrasound Imaging Validated By Mri

Mary Henderson; David Jordan; Zong-Ming Li

Poster No. 563

Thenar And Hypothenar Muscle Origins On The Transverse Carpal Ligament

Zong-Ming Li; David Jordan; Kent Kwoh; Hui Zhang

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PS1-028 Hand and Wrist - Osteoarthritis

Poster No. 564

Osteophytes Develop In A Porcine Wrist Model For Ligament Injury And Small Bone Replacement, Yet Joint Space Remains Unchanged

Quianna M. Vaughan; Amy M. Morton; Douglas C. Moore; Janine Molino; Edward Akelman; J J Trey Crisco

Poster No. 565

Six-year Longitudinal Assessment Of Radiographic And Clinical Progression In Early Thumb Carpometacarpal Osteoarthritis

Peter T. Ajayi; Amy M. Morton; Amy L. Ladd; Arnold-Peter C. Weiss; J J Trey Crisco

Poster No. 566

Preoperative Use Of Glucagon-like Peptide-1 Receptor Agonists Is Not Protective Against Pseudoarthrosis Following Small Joint Hand Arthrodesis: A Propensity-matched Analysis

Kyle Stump; Henry Morar; Alec Talsania; Dianly Centeno; Bradley Wiekrykas

Saturday, March 28, 2026

10:00 AM - 5:00 PM

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PS1-029 Hand and Wrist - Surgical and Therapeutic Innovation

Poster No. 567

Glucagon-like Peptide-1 Receptor Agonist Use And Postoperative Outcomes After Distal Radius And/Or Ulna Fracture Fixation In Adults With Type 2 Diabetes

Ankit Choudhury; Jacob Kodra; Harshavardhan Bollepalli; Lucas Mathson; Connor Sullivan; Steven Grindel; Anthony LoGiudice; Jessica Hanley

Poster No. 568

Early Postoperative Recovery Of Nerve Potentials In Advanced Carpal Tunnel Syndrome: Clinical And Metabolic Predictors

Tomohiko Inomoto; Yuichi Yoshii; Reo Asai; Yasukazu Totoki; Akira Ikumi; Takeshi Ogawa

Poster No. 569

Your Carpal Tunnel Biopsy Is Positive For Amyloid: Then What?

Jack Kramer; Katherine Elbert; Kasondra LaMere; Brian Bear

Poster No. 570

Outcomes And Predictors Of Success Of Thumb Carpometacarpal Joint Denervation

Yehuda Masturov; Jacob Zeitlin; Sebastian Arango; Loren Shamalov; Tristan Weir; Andrew Miller

Poster No. 571

A Randomized Controlled Trial Comparing Topical Cannabidiol To Topical Diclofenac For The Treatment Of Osteoarthritis Of The Thumb

Yehuda Masturov; Jason Flynn; Corbin Muetterties; Jacob Zeitlin; Sebastian Arango; Sidney Jacoby; Eon Shin; Andrew Miller

Poster No. 572

Analysis Of Surgical Irrigants In High-Pressure Paint Injection Injuries As Determined By Fluorescent Particle Imagery

Elise Ehrlich; Theodore Lin; Hugh Jones; Dean Smith

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PS1-030 Hand and Wrist - Tendon, Ligament and Neuromuscular Disorders

Poster No. 573

Glucagon-like Peptide-1 Receptor Agonist Use Is Associated With Decreased Incidence Of Trigger Finger And Complications Following Trigger Finger Release In Patients With Type 2 Diabetes: A Propensity-matched Analysis

Henry O. Morar; Kyle Stump; Dianly Centeno; Alec Talsania; Bradley D. Wiekrykas

Poster No. 574

Impact Of Parkinson's Disease On Complication Rates Following Distal Radius Fracture Treatment

Alexander K. Palma; Ryan Dominguez; Richard Samade

Poster No. 575

Insufficient Rehabilitation After Flexor Tendon Repair Impacts Patient Outcomes

Victor T. Hung; Daniel Bailey; Vansh S. Patel; Emma K. Watson; Tantien Nguyen; Miguel Diaz; Michael C. Doarn; James J. Creighton III

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Room #: Hall A

PS1-031 Shoulder and Elbow - Arthroplasty

Poster No. 576

Mixed-Reality Visualization In Revision Reverse Shoulder Arthroplasty: A Retrospective Comparative Study

William Smoot Smoot; Xavier Becsey; James Gregory

Poster No. 577

Optimizing Healthcare Dollars Spent On Total Shoulder Arthroplasty: Can The Choice Of Implant System Affect Total Cost

Emilie Cheung; Katherine Corso; Biju Varughese; Jill Ruppenkamp; Manuel Fuentes

Poster No. 578

Cost Analysis Of Primary Shoulder Arthroplasty In The United States: What Are The Economics Behind Cost-efficient Care?

Emilie Cheung; Katherine Corso; Biju Varughese; Jill Ruppenkamp; Manuel Fuentes

Poster No. 579

The Impact Of Noninfective Enteritis And Colitis On Outcomes Following Shoulder Arthroplasty: A Propensity-Matched Retrospective Cohort Study Of 8,574 Patients

Ahlam Ashkar; Debra H. Chan; Sudarsan Murali; Lincoln D. Koyejo; Rodrigo Saad Berreta; Umasuthan Srikumaran

Poster No. 580

Postoperative Complications Following Total Shoulder Arthroplasty In Multiple Myeloma Patients With Prior Bone Marrow Transplantation

Tera A. Scott; Randall R. Rainwater; Simon C. Mears; Benjamin M. Stronach; Jeffrey B. Stambough; C. Lowry Barnes; Jeffrey R. Hill

Poster No. 580A

Area Deprivation Index Outperforms Other Geographic Deprivation Indices In Predicting Recovery After Shoulder Arthroplasty

Eric Mao; Jeffrey Selby; Eve Glenn; Edward McFarland

Poster No. 581

Radiographic And Clinical Outcomes After Reverse Total Shoulder Arthroplasty With Hybrid Humeral Stem Fixation

Bryan T. Soth; Harry Haran; Spencer M. Lee-Rey; Obianuju A. Obioha; Anthony Finocchiaro; Samuel A. Taylor; Christopher M. Brusalis; Joshua S. Dines; Gabriella E. Ode; David M. Dines; Lawrence V. Gulotta; Michael C. Fu

Poster No. 582

Preoperative Planning Enhances Humeral Cut Accuracy And COR Restoration In Anatomic Total Shoulder Arthroplasty

Siddhant Thakur; David Knopf; Timothy Lenters; Nick Metcalfe; John Tokish; Brian Werner

Poster No. 583

Three-Dimensional Scapular Kinematics During Shoulder Abduction After Reverse Total Shoulder Arthroplasty

Itaru Kawashima; Norimasa Takahashi; Keisuke Matsuki; Ryo Haraguchi; Hayato Ryoki

Poster No. 584

Primary Stability Of Metallic Augmented Baseplates In Reverse Shoulder Arthroplasty: Are Two Peripheral Screws Enough?

Patrick Goetti; Pezhman Eghbali; Fabio Becce; Philippe Buechler; Alexandre Terrier

Poster No. 585

Postoperative Complications In Patients With Sickle Cell Disease Following Total Shoulder Arthroplasty

Katie M. Zehner; Gwyneth C. Maloy; John Slevin; Wesley Day; Jonathan N. Grauer; Arya G. Varthi

Poster No. 586

Outcomes Following Minimal Humeral Preparation Using A Self-broaching, Stemless Anatomic Total Shoulder Arthroplasty

Conor Smith; Joshua H. Taylor; Wame Waggenpack; Corey Hryc; Bradley Edwards

Poster No. 587

Malnutrition As A Predictor Of Postoperative Outcomes In Total Shoulder Arthroplasty: A Single Hospital System Retrospective Study

Michael Copeland; Leina Lunasco; Michael Hughes; Shameel Abid; Ronak Mahatme; Shawn Moore; Anish Gangavaram; Brian Grawe

Poster No. 588

Olecranon Fracture Associated With Latitude Total Elbow Arthroplasty - A Consecutive Cohort Study

Isabella Salazar; Kevin A. Hildebrand; Gerardo A. Duque

Poster No. 589

Risk Of Thromboembolic Events In Patients With Hemophilia Following Total Shoulder Arthroplasty

Kelan Queenan; Tarek Haj Shehadeh; Nathan Lanham; Gary Updegrave

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Room #: Hall A

PS1-032 Shoulder and Elbow - Diagnostics

Poster No. 590

Biceps Sheath Fluid As An Ultrasonographic Marker Of Asymptomatic Rotator Cuff Tears

Tomoya Ono; Jumpei Inoue; Luke T. Mattar; Lidya Canturk; Adam J. Popchak; Volker Musahl; James J. Irrgang; Richard E. Debski

Poster No. 591

Effect Of Obliquity On Metaphyseal-Diaphyseal Ratio And Anterior Humeral Line Alignment In Pediatric Supracondylar Fractures: A 3D Radiographic Study

Mason Chimenti; Gabrielle Rogie; Rohini Vanodia; Shiraz Younas

Poster No. 592

Influence Of Chronicity, Number, And Type Of Anterior Shoulder Instability Events On Hill-Sachs Lesion Size: A Morphometric Analysis Of 255 Patients

Sahil Dadoo; Ryan T. Lin; Tyler C. Williams; Ryan Gilbert; Maite Jaspers; Adam Popchak; Bryson P. Lesniak; Mark Rodosky; Jonathan D. Hughes; Albert Lin

Poster No. 593

Stratifying Rotator Cuff Treatment By Sane Score: Predicting Surgery With Patient-reported Outcomes

Jeremiah Mekonnen; Joshua Taylor; Alexandra Thomas; Corey Hryc; Kevin Kruse

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PS1-033 Shoulder and Elbow - Growth, Development and Aging

Poster No. 594

Subacromial Impingement Of Aged Murine Tendons Leads To Functional Impairments And Inferior Humeral Bone Quality

Krishna Pedaprolu; Matt Covello; Yuki Suzuki; Stern Hugo; Camila Carballo; Scott Rodeo; Claire Eliasberg

Poster No. 595

3D Morphometric Analysis Of Affected Versus Unaffected Scapulae In Sprengel's Deformity

Mahdi Aghaalikhani; Andrew Welcher; Simon Hay-Sutton; Rohan Bhatia; Carley Vuillermin; Mohammadreza Movahhedi; Ata M. Kiapour

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Room #: Hall A

PS1-034 Shoulder and Elbow - Injury and Healing

Poster No. 596

Biomechanical Advantages Of Using A Hybrid Screw Orientation For Fixing Capitellar Fractures

Feras Qawasmi; Sonia Slusarczyk; Logan M. Andryk; Mei Wang; Mustafa Yassin; Steven I. Grindel

Poster No. 597

Rotator Cuff Impingement Damages The Supraspinatus Tendon And Tenocyte Organelles, Causing Increased Apoptosis Of Tenocytes

Mao Nie; sai Yu; Yuexi Mou; Xiang-Hua Deng; Xianding Sun

Poster No. 598

Oral Contraceptive Use Has Protective Effect Against Rotator Cuff Tears In Women

Rachel X. Shi; Om B. Jahagirdar; Jonathan N. Grauer

Poster No. 599

Withdrawn

Poster No. 600

Activation Of The Err-γ Pathway Suppresses Muscle Atrophy And Fatty Degeneration Following Rotator Cuff Tear

Shin Osawa; Kohei Yamaura; Yutaka Mifune; Atsuyuki Inui; Issei Shinohara; Shuya Tanaka; Masaya Kusunose; Shunsaku Takigami; Yutaka Ehara; Daiji Nakabayashi; Takanobu Higashi; Ryota Wakamatsu; Ryosuke Kuroda

Poster No. 601

Luck Of The Draw: Comparing Outcomes Of Ballistic And Blunt Elbow Fractures

Ryan McIlwain; Robin Litten; Alcaide Doriann; Nigel Blackwood; Clay A. Spitler

Poster No. 602

Early Postoperative Physical Therapy Is Associated With Reduced Retear And Reverse Shoulder Arthroplasty After Rotator Cuff Repair- A Multiyear Matched Cohort Study

Joshua Wang; Cameron Bowers; Carolyn Henein; Philong Nguyen; William M. Weiss

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PS1-035 Shoulder and Elbow - Structure, Function and Mechanics

Poster No. 603

Flexor Muscle And Elbow Joint Gap Changes After 10 Week Forearm Strengthening

Jessica Geiger; Brett Pexa; Blake Jones; Kristen Nicholson

Poster No. 604

A Proximal Humeral Coordinate System Derived From Automatically Identified Landmarks Performs Comparably To Established Proximal Humeral Coordinate Systems

Jonathan D. Glenday; Lawrence V. Gulotta; Heath B. Henninger; Andreas Kontaxis

Poster No. 605

A Novel Model Of Anterior Shoulder Laxity

Jumpei Inoue; Masahito Yoshida; Tianyu Chen; Tomoya Ono; Volker Musahl; Albert Lin; Richard E. Debski

Poster No. 606

Does Scapular Upward Rotation Affect Subacromial Impingement In Lateralized Reverse Shoulder Arthroplasty?

Donghwan Lee; Joo Han Oh; Hyeon Jang Jeong; Choongsoo S. Shin

Poster No. 607

The Abduction Forces Of In Vitro Cuff Tears Mimic Abduction Forces In Natural Tears

Liam W. Brown; Marcos I. Zegarra; Mark Carl Miller; Patrick Smolinski; Christopher C. Schmidt

Poster No. 608

Morphological Characteristics Of The Scapular Spine And Acromion That Predispose Reverse Total Shoulder Arthroplasty Patients To Post-surgical Fracture

David A. Zaibert; Trevor Simcox; Kevin A. Hao; Jonathan Wright; Joseph King; Thomas Wright; Aimee Struck; Hongjia He; Sravya Kamarajugadda; Jennifer A. Nichols

Saturday, March 28, 2026

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PS1-036 Shoulder and Elbow - Surgical and Non-Surgical Interventions

Poster No. 609

Impact Of Glucagon-like Peptide-1 Receptor Agonist Use On Postoperative Outcomes Following Rotator Cuff Repair In Type 2 Diabetes: A Retrospective Cohort Analysis

Ankit Choudhury; Sonia Slusarczyk; Lucas Mathson; Matthew Van Boxtel; Anthony LoGiudice; Jessica Hanley

Poster No. 610

Impact Of Osteoporosis On Postoperative Outcomes Following Rotator Cuff Repair

Tera A. Scott; C. Lowry Barnes; Jeffrey R. Hill

Poster No. 611

Long-term Outcomes After Arthroscopic Bankart Repair For On-Track Lesions At Mean 10 Year Follow-Up

Sahil Dadoo; Tyler C. Williams; Ryan T. Lin; Ryan Gilbert; Kyle E. Andrade-Bucknor; Andrew Liu; Neel Bhardwaj; Shaquille Charles; Pittsburgh Shoulder Institute; Albert Lin

Poster No. 612

Critical Humeral Bone Loss Does Not Affect Long-term Patient-reported Outcomes After Arthroscopic Shoulder Stabilization

Ryan Gilbert; Ryan Lin; Sahil Dadoo; Tyler Williams; Maite Jaspers; Andrew Liu; Neel Bharadwaj; Kyle Andrade-Bucknor; Shaquille Charles; Adam Popchak; Bryson Lesniak; Mark Rodosky; Jonathan Hughes; Albert Lin

Poster No. 613

Isolated Osteochondritis Dissecans Of The Radial Head Without Radial Head Subluxation In Young Throwers: A Report Of Two Cases And A Review Of The Literature

Stephen D. Williams; Nicholas Koumontzis; Peter D. Cummings

Poster No. 614

Can Academic Productivity Predict Nonresearch Industry Earnings Among Shoulder Surgeons?

Sameer Khawaja; Corey Hryc; Raven Hollis; Shragvi Balaji; Brenton Jennewine; Michael Cusick; T. Bradley Edwards

Poster No. 615

Timing, Frequency, And Predictors Of Emergency Department Visits Following Bankart Repair

Julian Smith-Voudouris; Arjun Aron; Joshua Sanchez; Katie Zehner; Mary K Mulcahey; Jonathan N. Grauer

Poster No. 616

Effects Of A Personalized Exercise Therapy On Passive Range Of Motion And Isometric Strength Up To 5 Years

Lidya Canturk; Luke T. Mattar; Adam J. Popchak; Volker Musahl; James J. Irrgang; Richard E. Debski

Poster No. 617

Left Humerus Fracture On Dialysis Access Arm

Emma M. Kosowski; Kaelyn Gordon; Jerry Gibson; Miriam Michael; Kakra Hughes; Elizabeth Beyene; Syed Fahad Gillani

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Room #: Hall A

PS1-037 Skeletal Muscle - Diseases and Disorders

Poster No. 618

Transcriptomic Analysis Utilizing Sarcopenia-associated Geo Datasets For The Identification Of Efficacious Candidate Factors In Sarcopenia

Jae Gyu Kim; Min-Jee Kwon; Yeon Hee Lee; Ashish Ranjan Sharma; Sang-Soo Lee

Poster No. 619

Novel Muscle Imaging Biomarkers To Characterize Progression Of Osteoarthritis-validation In A Post-Traumatic OA Murine Model

Usha Sinha; Sheronda Statum; Sophia Dwek; Kevin Burt; Yajun Ma; Aurea Mohana-Borges; Carla Scanzello; Shantanu Sinha; Christine B. Chung

Poster No. 620

Evaluation Of The Utility Of Phase Angle In The Diagnosis Of Rheumatoid Sarcopenia

Yuki Saito

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Room #: Hall A

PS1-038 Skeletal Muscle - Exercise and Rehabilitation

Poster No. 621

The Effects Of "aheaho Exercise" On Respiratory Function And Trunk Muscle Activities

Masahiro Shimono; Daichi Ohno; Norito Kurosawa; Manabu Saito; Hiroshi Yamazaki; Takumi Kitamura; Yoshiaki Kataoka

Poster No. 622

The Influence Of Analgesic Medications On Adaptations Of Paraspinal Muscle To Resistance Exercise In Patients With Chronic Low Back Pain

Selena Y. Xiang; Zachary Brumm; Anirudh Anand; David B. Berry; Kamshad Raiszadeh; Lara Havandjian; Armin Zavareh; Bahar Shahidi

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PS1-039 Skeletal Muscle - Imaging, Treatment and Clinical Outcomes

Poster No. 623

An Audit Of Open-source Software For Ultrasound-based Muscle Fascicle Tracking

Nicole Banka; Kayce Ochoa; John F. Drazan

Poster No. 624

Paraspinal Muscle Remodeling In Adolescent Idiopathic Scoliosis: A Statistical Shape Modeling Study

Zhenhao Liu; Yueh Lee; Nevaeh Nez; James Sanders; Geoffrey Handsfield

Poster No. 625

Associations Between Thigh Muscle Composition And Hip Bone Mineral Density In Older Adults Of The Study Of Muscle, Mobility And Aging (SOMMA): A Computed Tomography (CT) Ancillary Study

Mason Shaffer; Ashley Weaver; Muzammil Mumtaz; Delanie Lynch; Steven Kritchevsky; Denise Houston; Fang-Chi Hsu; Ryan Barnard; Leon Lenchik; Elsa Strotmeyer; Jane Cauley; Peggy Cawthon; Megan Hetherington-Rauth

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PS1-040 Skeletal Muscle - Injury and Healing

Poster No. 626

High-resolution Spatial Transcriptomics Of Intra-operative Muscle Biopsies Establishes A Platform For Biomarker Discovery In Nerve Repair

Vikram Murugan; Patricia Pirbhoy; Michael Hicks; Oswald Steward; Ranjan Gupta

Poster No. 627

Persistent Shift From Oxidative To Glycolytic Fibers Underlies Quadriceps Weakness Post-anterior Cruciate Ligament Injury

Jianting LI; Sai-Chuen Fu; Yung Shu-Hang, Patrick

Poster No. 628

Topical Metformin Lotion Enhances Muscle Regeneration Following Volumetric Muscle Loss In Mice

Liyang Chen; Vasyi Pastukh; Jianying Zhang; James Wang

Poster No. 629

Assessment Of Rodent Gait Relative To Pain As A Means Of Evaluating Fracture Recovery

Emily McCarthy; Sarah Kirk; Moya Priddy; Matthew Ludington; Keith Irobosa; Paola Divieti Pajevic; Louis Gerstenfeld; Beth Bragdon; Elise Morgan

Poster No. 630

Functional Limb Reconstruction Using Decellularized Skeletal Muscle Scaffold

Tsubasa Hasegawa; Tomohiro Fujiwara; Shiro Fukuoka; Kazuya Sawada; Yusuke Mochizuki; Masanori Yorimitsu; Toshiya Fujisato; Toshifumi Ozaki

Poster No. 631

Improving The Minced Muscle Graft For Repair Of Volumetric Muscle Loss Injuries By Priming Donor Tissue

Sarah M. Greising; Daniel B. Hoffman; Thomas J. Lillquist; Jacob P. Quint

Poster No. 632

Modulating The Integrated Stress Response Limits Fibrosis And Enhances Muscle Function By Redirecting Fibro/adipogenic Progenitors Differentiation After Injury

Hanzhi Zhang; Justin Lau; Hiroyori Fusagawa; Alex Brown; Brian Feeley; Xuhui Liu

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Bioactive Glass And Deferoxamine Synergistically Promote Angiogenesis And Myogenesis In Vitro: Implications For Skeletal Muscle Regeneration

Guozhu Chang; Honfai Chan

Poster No. 634

Clinically Relevant Severe Acute Compartment Syndrome In Turkey Model.

Ichiro Tsukamoto; Margaret Brosig; Ramona Reisdorf; Po-Yen Ko; Weizhe Zhang; Yongxin Mai; Chunfeng Zhao

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PS1-041 Skeletal Muscle - Structure, Function, Mechanics and Mechanobiology

Poster No. 635

Gastrocnemius Muscle Changes Following Hindlimb Tibial Ostectomy And External Coaptation In Goats

Ben T. Baker; David Anderson; Dustin Crouch; Xiaojuan Zhu

Poster No. 636

A Microphysiological Model Of Skeletal Muscle Reveals Repetitive Loading Improves Myogenic Differentiation And Protein Organization

Adam Rauff; Ievgenii Liashenko; Samuel Nightheart; Grace Privett; Paul Dalton; Nick Willett; Robert Guldberg

Poster No. 637

Association Between Lumbar And Hip Muscle Degeneration: A Cross-sectional MRI-based Analysis

Anna-Maria Mielke; Marco Burkhard; Bruno Verna; Ali Guven; Jiaqi Zhu; Jennifer Shue; Peter K. Sculco; Federico P. Girardi; Frank P. Cammisa; Andrew A. Sama; Alexander P. Hughes

Poster No. 638

Withdrawn

Poster No. 639

Continuous Semaglutide Infusion Impacts Female Mouse Musculoskeletal Tissue During Immobilization Without Changing Food Intake Or Body Weight

Sophie V. Orr; Natalie K. Gilmore; Aydin Anand; Rohan Shenoy; Keith Baar; Blaine A. Christiansen

Saturday, March 28, 2026

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Room #: Hall A

PS1-042 Bone - Diseases and Disorders

Poster No. 640

Digital Pathology Of The Femoral Head: Using A Novel RGB-Trichrome Stain For Tissue Quantification Using Halo®

Ashton A. Amann; Ferenc Toth; Casey P. Johnson; Alexandra R. Armstrong

Poster No. 641

Single-cell Rna-seq Reveals A Repair Pattern In Cystic Lesions In Steroid Induced Osteonecrosis Of The Femoral Head

Mincong He; Peng Peng; Wei He; Qiushi Wei; Huan Xiao

Poster No. 642

Nuak1 Mediates Osteoclast Energy Metabolism Through The Regulation Of Mitochondrial Respiratory Chain Homeostasis

Siyue Tao; Heng Zhao; Zhiyang Kang; Zhixuan Kang

Poster No. 643

Effects Of The Toll-like Receptor 4 Antagonist Eritoran On Necrotic Bone-induced Inflammation And Osteoblast Differentiation

Keiji Otaka; Kenichi Mishima; Yusuke Osawa; Yasuhiko Takegami; Hiroto Funahashi; Shinya Tanaka; Shiro Imagama

Poster No. 644

Factors Affecting Activity Of Daily In Systemic Juvenile Idiopathic Arthritis

Takahiro Fujimori

Poster No. 645

Iron-Deficiency Anemia Modulates Erythropoiesis-Bone Crosstalk And Drives Bone Loss

Christoph Merceron; Nupur K. Das; Prakaimuk Saraithong; Xiaohua Gao; Andreanna Ulery; Gregory Myers; Rami Khoriaty; Yatrik Shah; Annemarie Lang

Poster No. 646

Early Pathological Changes In Mice With Corticosteroid Induced Osteonecrosis Of The Femoral Head - A Preliminary Study -

Takahiro Igei; Yosuke Susuki; Issei Shinohara; Simon Chow; Pierre Cheung; Abraham S. Moses; Mayu Morita; Chao Ma; Qi Gao; Monica Thukkaram; Max Lee; Mehmet Sertac Cekuc; Hannes Kern; Corinne Beinat; Stuart Goodman

Poster No. 647

Endothelial-to-mesenchymal Transition Drives Vascular Dysfunction In Steroid-induced Osteonecrosis Of The Femoral Head

Xiaoqiang Yang; Fan Yang; Wei He

Poster No. 648

Subchondral Bone And Cartilage In Knee Osteoarthritis (STAR OA) Using HR-pQCT And MRI

SeyedAmirHossein Sajedi; Lynette X. Lopez; Nancy E. Lane; Ali Guermazi; John A. Lynch; Joan M. Bathon; Jeffrey Duryea; Elizabeth E. Park; Marcella D. Walker; X Edward Guo

Poster No. 649

Early Life Stress Induces An Osteocatabolic Response In Female Mice, But Has No Long-term Effects On Fracture Healing

Dorothea Gebauer; Tamara Schimmele; Dominik Langgartner; Giulia Mazzari; Julian Probst; Jana Bleher; Giulia Weingast; Anita Ignatius; Gaia Tabacco; Anda Mihaela Naci; Maria Vittoria Messina; Andrea Palermo; Stefan Oskar Reber; Melanie Haffner-Luntzer

Poster No. 650

CD47 Deficiency Triggers Hemolytic Anemia And Alters The Bone Marrow Niche During Fracture Repair

Christina Capobianco; Prakaimuk Saraithong; Jeanna Schmanski; Gregory Myers; Rami Khoriaty; Kurt Hankenson; Annemarie Lang

Poster No. 651

Dextran Sodium Sulfate-induced Colitis Promotes Inflammatory Response Of Osteal Macrophages Leading To Pathological Bone Loss In Mice

Ryota Suzuki; Alaa Terkawi; Norimasa Iwasaki; Tsutomu Endo

Poster No. 652

Osteoclast Inhibition Reduces Fibrosis Expansion And Alters Cell Phenotype In Murine Model Of Fibrosis Dysplasia (FD)

Yongxing Zhang; Renee Ormsby; Kelly Tsang; Felix Killick; Julia Charles

Poster No. 653

Association Of Rheumatoid Arthritis Pharmacologic Therapy With Infection, Revision, And Stiffness After Total Knee Arthroplasty: A 2-year Retrospective Cohort Study

Joshua Wang; Carolyn Henein; Philong Nguyen; Cameron Bowers; William M. Weiss

Poster No. 654

Longitudinal Subchondral Bone Microstructure Changes In A Spontaneous Osteoarthritis (oa) Guinea Pig Model

Teodora Dinescu; Lynette X. Lopez; SeyedAmirHossein Sajedi; X Edward Guo

Poster No. 655

Blockade Of Osteocyte Pyroptosis Drives Oa Cartilage Degeneration Promoting Remodeling Of Subchondral Bone

Yuki Ogawa; Alaa M. Terkawi; Ryota Suzuki; Masaya Nakajo; Yuki Fujie; Taiki Tokuhira; Taku Ebata; Tsutomu Endo; Daisuke Takahashi; Norimasa Iwasaki

Poster No. 656

Development Of A Murine Model Of Staphylococcus Aureus Acute Hematogenous Osteomyelitis Facilitated By Focused Ultrasound-induced Minor Trauma

Norman A. Lapin; Jessica R. Durrant; Naureen G. Tareen; Lawson A. Copley

Poster No. 657

Lysosomal-mediated Regulation Of Chondrocyte Metabolism Via The Linking Of Pgrn And Gba Mutation

Xiangli Zhao; Yi Lin; Benjamin Liou; Ying Sun; Chuan-ju Liu

Poster No. 658

Ddah1 Regulates Mitophagy In Endothelial Cells And Determines Cell Fate Of Bmscs Via Delivering Mirna-19b-2-5p By Exosomes

Ziang Xie

Poster No. 659

Immune Dysregulation As A Novel Pathogenetic Mechanism In Glucocorticoid-induced Osteonecrosis

Akio Umemoto; Shunichi Yokota; Joseph Lane; Emily Stein; Kyung-Hyun Park-Min; Alexandra Krez

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-043 Bone - Growth, Development and Aging

Poster No. 660

Spry4 Regulates Bone Angiogenesis And Osteogenesis: Investigating The Vascular-SSPC Link

Margaux Sambon; Kevin Leclerc; Malissa Ramsukh; Lindsey Remark; Matthew Rytel; Gabrielle Pack; Benjamin C Schaffler; Jack R Zhong; Sophie Morgani; Philipp Leucht

Poster No. 661

Girk3 Deletion Enhances Osteoblast Mineralization Via Ifi202b

William R. Hartman; Haydee M. Torres; Jennifer J. Westendorf; Samantha R. Weaver

Poster No. 662

Bone Adaptation to Protein Supplementation During Weight-loss

Madhura Nijsure; Clifford J. Rosen

Poster No. 663

Identification Of Human Bone Marrow-derived Long-term Mesenchymal Stem Cells

Shuya Tanaka; Masanori Miyanishi; Yutaka Mifune; Shinya Hayashi; Tomoyuki Matsumoto; Ryosuke Kuroda

Poster No. 664

Bone Strength, Toughness, And Crack Initiation Toughness Decline With Age In Female C57BL/6N Mice

Emily Berestesky; Sasidhar Uppuganti; Elizabeth Hennen; Jeffrey Nyman

Poster No. 665

Old Blood, Young Bones: The CD11B/CD36/Wnt6 Axis Protects Against Cortical Bone Loss

Jinsha Koroth; Ismael Karkache; Elizabeth Vu; Mitchell J. Shimak; Kim C. Mansky; Elizabeth Bradley

Poster No. 666

Trpm7 Mediates Chondrocyte Senescence In Osteoarthritis By Inducing Pdk4-dependent Mam Formation And Cgas-sting Activation

Cheng Sun; Renpeng Zhou; Wei Hu; Hao Liu

Poster No. 667

Reprogramming Method For induced Pluripotent Stem (ips) Cells Derived From Mouse Skin Fibroblasts And Perspectives For Bone Regenerative Therapy

Mayu Kurihara; Simon Kwoon-Ho Chow; Qi Gao; Chao Ma; Takahiro Igei; Ryota Hirose; Yosuke Susuki; Issei Shinohara; Masatoshi Murayama; Max L. Lee; Stuart B. Goodman

Poster No. 668

Atopic Conditions Are Associated With Increased Osteoporosis And Fragility Fracture Risk In Menopausal Patients: A Matched Cohort Study

Joshua Wang; Philong Nguyen; Carolyn Henein; William M. Weiss

Poster No. 669

Gluten And Lactose Intolerance Are Associated With Increased Risk Of Osteoporosis, Fragility Fractures, And Arthroplasty In Postmenopausal Women- A Matched Cohort Study

Joshua Wang; Carolyn Henein; Philong Nguyen; William M. Weiss

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-044 Bone - Injury and Healing

Poster No. 670

Histological And Radiographic Effects Of E-cigarette Vapor On Fracture Healing In A Mouse Fibula Model

Tony Y. Lee; Elianna Fred; Iyad Ali; Giancarlo Riccobono; Cole Christenson; Samuel Liu; Eddie Zhou; Frances Akwuole; James MacLeod; Avani Chopra; Yianni Bakaes; Jinyuan Li; Stuart R. Stock; Erin L. Hsu; Romie Gibly

Poster No. 671

Dynamic Changes In Dorsal Root Ganglion Neurons Following Bone Fracture

Masakazu Toi; Dustin Snapper; Colton Unger; Marika Rosenfeld; Kazuhito Morioka; Chelsea Bahney

Poster No. 672

Selection Of Mechanical Properties For Virtual Mechanical Testing Of Clinical Distal Femur Fractures

Maham Tanveer; Hannah Dailey

Poster No. 673

The Number Of Cannulated Screws In The Distal Block Of A Later Condylar Plate Does Not Change The Strain At A Distal Femur Fracture Site: A Finite Element Study With Validation

Gregory R. Roytman; Louise Atedja; Motasem Salameh; Brad J. Yoo; Steven M. Tommasini; Daniel H. Wiznia; Brianna R. Fram

Poster No. 674

The Integral Role Of Platelets In Fracture Repair With Aging

Matthew Rytel; Benjamin C Schaffler; Jack R Zhong; Margaux Sambon; Kevin Leclerc; Gabrielle Pack; Sophie Morgani; Philipp Leucht

Poster No. 675

Ongoing Development Of A 3d Printed Four-stage In Vitro Fracture Callus Model

Nicholas Lamb; Sophia Sangiorgio; Edward Ebramzadeh; Sang-Hyun Park

Poster No. 676

Hoxa10 Maintains The Murine And Human Skeletal Stem Cell Pool

Kevin Leclerc; Margaux Sambon; Lindsey Remark; Malissa Ramsukh; Matthew Rytel; Sophie Morgani; Philipp Leucht

Poster No. 677

Human Ipsc-derived Extracellular Vesicles (hipsc-evs) Promote Osteogenic Differentiation

Cheng-Jung Ho; Shu-Chun Chuang

Poster No. 678

β -tricalcium Phosphate Granules Containing Bone Morphogenetic Protein 2 Achieves Bone Healing Comparable To Autograft In A Rabbit Masquelet Model

Takehiro Konishi; Yuya Yamamoto; Tomoaki Fukui; Ryowa Mineo; Genta Fukumoto; Fnu Jonathan; Hyuma Kondo; Ryota Nishida; Kenichi Sawauchi; Yohei Kumabe; Keisuke Oe; Ryosuke Kuroda

Poster No. 679

Withdrawn

Poster No. 680

Blackbox-Based Gait Analysis Outperforms Observational Scoring In Tracking Murine Post-Fracture Recovery

Xiaohua Gao; Sophia Fisher; Annemarie Lang

Poster No. 681

Sexual Dimorphism In Bone Trace Minerals Following Fracture

Darian A. Napoleon; Jonathan R. Lopez; James Thornton; Laura Kuklo; Michael Greenberg; Mark Fisher; Jason Daniels; Ruey H. Chee; Hamza Chah; Constantine Sedereas; Maya D. Culbertson; David Paglia; J. Patrick O'Connor; Joseph Benevenia; Sheldon S. Lin

Poster No. 682

A retrospective Comparison Of Patient Outcome Studies Following Orif Distal Radius Fracture Repair Between Orthopaedics- And Plastic Surgery-trained Hand Surgeons

Alice Lee; Victoria Cuello; Natalie Black; John Faillace

Poster No. 683

Long-term Complications And Recovery Following Intertrochanteric And Femoral Shaft Fracture Fixation In Geriatric Adults

Emmerson E. McGowan; John Hagedorn II; Joshua Wang

Poster No. 684

Iron Depletion Persists At 3 Months From Fracture Surgery

Caellagh Catley; Natasha McKibben; Catherine Hutchison; Talia Trapalis; Dane Brodke; Graham DeKeyser; Zachary Working

Poster No. 685

Supplemental Medial Column Screw (mcs) Increases Stiffness When Compared To Isolated Lateral Locked Plating Of Distal Femur Fracture In Osteoporotic Bone

Riley Davis; Fernando Ferrera; Nicholas Thomas; Gele Moloney; James A DeLullo; Kenny Koay; James Hearn; Seyed Hamid Reza Sanei

Poster No. 686

Metformin Promotes Femoral Fracture Repair Through Ampk And Mitochondrial Pathways In Rats

Vasyl Pastukh; Jianying Zhang; Arshia Shams; Satyaj Bhargava; Celina Zhao; James Wang

Poster No. 687

Dual-view Self-supervised Learning Accurately Quantifies Murine Fracture Healing From Orthogonal Radiographs

Rui Hu; Richard Parish Cooper; Mostardo Sarah Lyn; Roman Natoli; Kacena Melissa Ann; O'Neill Dillon; Gergely Istvan; Jie Chen; Nian Wang; Mubashir Jafry

Poster No. 688

Characterization Of Human Skeletal Stem Cells In Closed And Open Tibia Fractures: A Single Center Pilot Study

Augustine Saiz; Ruben Tresgallo-Parés; David Morales; Shannon Tse; Aziz Saade; Ellen Fitzpatrick; Sean Campbell; Gillian Soles; Thomas Ambrosi; Mark Lee

Poster No. 689

Targeting Apolipoprotein E To Improve Obesity-impaired Fracture Healing

Mingjian Huang; Abhinav Balu; Catherine Dietrich; Kristin Molitoris; Gurpreet Baht

Poster No. 690

Role Of Adrenergic Signaling In Fracture Healing Of Non-osteoporotic And Osteoporotic Bone

Sandra Dieterich; Nico Gläser; Christoph Kölbl; Dorothea Gebauer; Miriam Eva Angelica Tschaffon-Müller; Oliver Küppers; Jana Bleher; Verena Fischer; Anita Ignatius; Melanie Haffner-Luntzer

Poster No. 691

Baseline Serum Metabolites Predict Fractures In A Subset Of Individuals Who Were Black And Had Type 2 Diabetes

Carolyn Chlebek; Valerie Bussberg; Niven R. Narain; Michael A. Kiebish; Yu-Hua Tseng; Clifford J. Rosen; Matthew D. Lynes

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-045 Bone - Mechanobiology

Poster No. 692

Experimental Evaluation Of Scaffold Permeability In Relation To Bone Screw Sizes

Leon C. LaHaye; Yufeng Dong; Giovanni Solitro

Poster No. 693

Assessing Age-related Changes In Primary Osteocyte Mechanosensitivity

Kimberly Seaman; Chun-Yu Lin; Xin Song; Bryan Guo; William W. Du; Yu Sun; Burton Yang; Lidan You

Poster No. 694

Non-running Activities Mediate The Osteogenic Response To Voluntary Wheel Running

Philippe Huber; Brandon J. Ausk; Steven D. Bain; Ted S. Gross

Poster No. 695

Longitudinal Multiscale Finite Element Modeling For Characterizing 4D Bone Modeling And Remodeling In A Mouse Tibia Loading Model

Peter T. Shyu; Giuliana Fagre-Guerriero; X Edward Guo

Poster No. 696

A Multi-scale Computational Framework For Simulating The Immune-mediated Inflammatory Response In Murine Early Bone Fracture Healing

Ahmad Hedayatzadeh Razavi; Nazanin Nafisi; Elizabeth Vickery; Alireza Mirahmadi; Ara Nazarian

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-046 Bone - Structure, Function and Mechanics

Poster No. 697

Automated Statistical Shape Modeling Identifies Sex-based Differences In Tibial Morphology Of Patients With Primary Acl Injuries

Justin H. Lau; Aniket Pratapneni; Karsyn Bailey; Emma Bahroos; Rupsa Bhattacharjee; Thomas Link; Sharmila Majumdar; Drew Lansdown

Poster No. 698

Biomechanical Stress Differences During Walking In Transtibial And Transfemoral Bone-anchored Limbs: Implications For Stability

Jake Tinsley; Dana Carpenter; Jason Stoneback; Brecca Gaffney

Poster No. 699

Custom 3D Printed Fixtures For Repeatable Torsional Testing Of Mouse Tibia Fracture Callus

Luke Schroeder; Conor Locke; Christina Capobianco; Tristan Maerz; Kenneth Kozloff; Kurt Hankenson

Poster No. 700

Patient-specific Determinants Of Residual Limb Stresses In Transfemoral Bone-anchored Limb Users

Jake Tinsley; Dana Carpenter; Jason Stoneback; Brecca Gaffney

Poster No. 701

Ex Vivo Raloxifene Treatment Of The Human Radius Improves Whole Bone Biomechanical Behavior

Maria Prado; Glynn Gallaway; Ayishe Jin; Rachel Surowiec; Thomas Siegmund; Laura Pyrak-Nolte; Matthew Allen; Joseph Wallace

Poster No. 702

Using UTE-MRI Bound Water Maps To Predict Human Tibia Mechanical Properties Via Finite Element Modeling

Grant Belush; Cooper Rusch; Glynn Gallaway; Ayishe Jin; Brian Kelly; Thomas Siegmund; Rachel K. Surowiec

Poster No. 703

Maximum Stresses In The Femoral Diaphysis During Habitual Ambulation

Mikayla R. Hoyle; Saulo Martelli; Marcus Pandy; Mariana Kersh

Poster No. 704

Effects Of Twister Cables On The Malalignment Of The Lower Extremity In Children With Gait Disorder

Harshavardhan Bollepalli; Stacy Stibb; Xue-Cheng Liu

Poster No. 705

Effectiveness Of Labral And Capsular Management Towards Hip Stability Before And After Cam Over-resection: An In Vitro Imaging Study

Mohammadreza Kheshti; Luke Beaton; Peter Doan; Louis Ferreira; Degen Ryan; Geoffrey Ng

Poster No. 706

Experimental Validation Of Computational Finite Element Models For Prophylactic Intramedullary Nail Fixation Of Metastatic Femur Lesions

Zachary A. Koroneos; Hwa Bok Wee; Parker Fox; Scott Tucker; Edward Fox; Greg Lewis

Poster No. 707

Influence Of Structural And Material Properties On The Risk Of Bony Endplate Failure During Vertebral Fracture

Elise F. Morgan; Neilesh Frings; Veronica Caruso

Poster No. 708

Potential Role Of Lactobacillus Johnsonii In The Bone-protective Effects Of Intermittent Fasting In Obesity

Honey Hendesji; Abhirupa Ghosh; Ana Ferreira Ruble; Douglas Adams; Janani Ravi; Mike Zuscik

Poster No. 709

Biomechanical Effects Of A Nitinol Staple And Buttress Plating In Pauwels Iii Femoral Neck Fractures: A Cadaveric Comparison With Cannulated Screws

Zachary A. Koroneos; Rita Aoun; Andrea Attenasio; Oliver Hauck; Erik N. Kubiak

Poster No. 710

Electromechanical Properties Of Cortical Bone Across Hydration States: A Proxy For Bone Quality

Zahra Karimi; Natalie Verdugo; Scott Miller Scroggins; Joseph Schwab; Hamid Ghaednia

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-047 Bone - Treatment and Therapeutics

Poster No. 711

Trade-offs Between Compression And Relaxation: The Role Of Screw Angle In Long-oblique Fracture Fixation

Rachel Bonfini; Karl Hoenecke; Farzad Abdi; Badhan Saha; Elizabeth Silvestro; Anna M. Massie; Michael W. Hast

Poster No. 712

Therapeutic Treatment Of Osteoporotic Femur: Poroelastic Approach

Young June Yoon

Poster No. 713

Finite Element Analysis Is A Useful Tool In The Development Of Orthopedic Screw Drivers

Jigar Vasava; Brayden Reiland; Ravi Ananthan; Marcus Mohr

Poster No. 714

Early Cellular Responses In Male And Female Rats To Bmp-2 CmRNA Delivered Into Critical Size Femoral Defects

Rodolfo E. de la Vega; Martijn van Griensven; Carlos Peniche Silva; Dimitri Sokolowskej; Christian Plank; Christopher H. Evans; Robert J. Tower; Elizabeth R. Balmayor

Poster No. 715

The Influence Of Soft Tissue Composition And Arm Diameter On Interfragmentary Motion In Humeral Shaft Fractures Treated With Functional Bracing

Albert H. Lee; Gregory R. Roytman; Steven M. Tommasini; Daniel H. Wiznia; Brianna R. Fram

Poster No. 716

The Influence Of Retrograde Intramedullary Nail Length On Interfragmentary Strain In Distal Femur Fractures

Anish Raju; Gregory R. Roytman; Steven M. Tommasini; Daniel H. Wiznia; Brianna R. Fram

Poster No. 717

Development Of An Innovative Nonunion Treatment Using An Intramedullary Shock Wave Device: Feasibility Evaluation In Animal Experiments

Masaomi Saeki; Daisuke Ichihara; Ai Ueno; Hiroaki Nakashima; Eijiro Maeda

Poster No. 718

Metformin Promotes Bone Healing By Modulating Multifaceted Mechanisms Of Action: A Systematic Review Of Preclinical Trials

Patrick M. Blankenberg; Monica Thukkaram; Mehmet Sertac Cekuc; Yasemin Ergul; Hannes Kern; Simon Chow; Stuart Goodman

Poster No. 719

Mitigating Glucocorticoid - Induced Osteonecrosis In Acute Lymphoblastic Leukemia Using Metformin

Hannes Kern; Max Lee; Mayu Morita; Mehmet Sertac Cekuc; Yasemin Ergul; Patrick Michael Blankenberg; Takahiro Igei; Yosuke Suzuki; Simon Chow; Chao Ma; Qi Gao; Kevin Shea; Karen Chao; Stuart Goodman

Poster No. 720

Cost Comparison Between Open Reduction And Internal Fixation And Non-operative Management For Ulnar Diaphyseal Fractures

Herman Johal; Kim Rondeau; Ahmed Negm; Jessica Duong; Andrew Dodd; Paul Duffy; Robert Korley; Prism Schneider

Poster No. 721

Long-term Fracture Complications In Hiv Patients Treated With Antiretroviral Therapy

Emmerson E. McGowan; Ruth Simpson; Kaitlin Nunn; Zbigniew Gugala

Poster No. 722

Therapeutic Effects Of Bisphosphonates On A Model Of Arthritis-induced Osteoporosis

Tadamasa Handa; Hiroki Wakabayashi; Masahiro Hasegawa

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-048 Foot and Ankle - Diagnostics

Poster No. 723

Pediatric Foot And Ankle 3D Measurements From Weightbearing Computed Tomography

Dominic M. Benna; Andrew C. Peterson; Amy L. Lenz; Karen M. Kruger

Poster No. 724

The Role Of Metatarsophalangeal Distraction For The Diagnosis Of Plantar Plate Tear Using Radiographs: A Cadaveric Study

Mohammad Hossein Chegini Kord; Nandini Anurag Lal; Atta Taseh; Soheil Ashkani Esfahani; Bhamidipati Abhinav; Srinivas Surbhi; John Y. Kwon; Christopher W. DiGiovanni; Lorena Pineda; Gregory R. Waryasz; Lercan Aslan

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-049 Foot and Ankle - Growth, Development & Aging

Poster No. 725

Evaluating Factors Associated With Surgical Management In Pediatric Patients With Symptomatic Accessory Navicular: A Single-Center Retrospective Study

Ankit Choudhury; Harshavardhan Bollepalli; Adam Thiessen; Alicia Zolkoske; Shayne Fehr

Poster No. 726

Ankle Laxity And Associated Factors Among Older Adults: A Community-based Study In Odai Town

Naoya Ito; Akinobu Nishimura; Tomoki Terada; Koki Yamazaki; Yuki Fujikawa; Masahiro Hasegawa

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-050 Foot and Ankle - Injury and Healing

Poster No. 727

Comparison Of The Efficacy Of Surgical And Non-surgical Interventions For Acute Achilles Tendon Rupture: An Innovative Mouse Model

Mao Nie; Keyu Wei; Sai Yu; Xiang-Hua Deng; Xianding Sun

Poster No. 728

Oral Contraceptive Use Is Associated With Reduced Ankle Sprains In Women

Rachel X. Shi; Gwyneth Maloy; Alexandros Pappajohn; Jonathan N. Grauer

Poster No. 729

Smoking History Is Associated With Increased Incidence Of Reoperation For Nonunion Following Tibial Shaft Fracture: A Propensity-matched Analysis

Kyle Stump; Dilan Prasad; Alec Talsania; Saqib Rehman

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-051 Foot and Ankle - Structure, Function & Mechanics

Poster No. 730

Modeling Foot Invertor And Evertor Muscle Tendon Lengths With Milwaukee Foot Model Kinematics In Opensim

Maxine L. Olson; Christina M. R. Garman; Joseph J. Krzak; Philip A. Voglewede; Gerald F. Harris; Karen M. Kruger

Poster No. 731

Comparing Bone Alignment Of Asymptomatic Flatfoot And Progressive Collapsing Foot Deformity Using 3D Radiographic Measurements

Meghan Carter; Andrew Peterson; Elana Lapins; Charles Saltzman; Amy Lenz

Poster No. 732

The Intact And Pathologic Function Of The Windlass Mechanism During Extension Of The Hallux

Takumi Kihara; Eric Thorhauer; Corey Wukelic; William Lin; Bruce J. Sangeorzan; William R. Ledoux

Poster No. 733

Cavus Foot Deformity In Individuals With Cmt Alters Achilles Tendon Moment Arm

Tyce C. Marquez; Chirayu Shukla; Jason Wilken; Donald D. Anderson; Bopha Chrea

Poster No. 734

Inherent Foot Deformities Cause Increased Lateral Column Loading In Individuals With Cmt

Tyce C. Marquez; Lauren Crowe; Jason Wilken; Bopha Chrea; Don D. Anderson

Poster No. 735

Weight Bearing Vs Non-weight Bearing Shear Wave Elastography Of The Plantar Fascia

Petar Nikolic; Simeon Smith; Daniel Latt

Poster No. 736

Relative Elongation Of The Ankle Deltoid Ligament During Running

Elizabeth N. Plakseychuk; Abdulganeey Olawin; Mike Kuhn; Tom Gale; William Anderst; Jarrett Cain

Poster No. 737

Development And Validation Of Machine Learning Algorithm To Predict Foot/Ankle Gait Kinetics And Kinematics Using Anthropometric Parameters

Ishan S. Vyas; Benjamin J. Boggs; Michael E. Hahn; Tammy M. Owings; Nicholas Entress; William Ledoux; Robb W. Colbrunn

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-052 Foot and Ankle – Surgical & Non-Surgical Interventions

Poster No. 738

Interconnections Among Midfoot Joints And Accuracy Of Ultrasound-guided Injection For Midfoot Arthritis

Soichi Hattori; Tomoya Ono; William Gamble; Patrick Smolinski; MaCalus Hogan

Poster No. 739

Achilles Repair: Revised Modified Gift Box Reduces Gap Under Cyclic Loading

Soichi Hattori; Ric Smith; William Gamble; Kenzo Cotton; Sydney Morris; Mark Carl Miller; Patrick Smolinski; MaCalus Hogan

Poster No. 740

Posterior Malleolar Fracture Fixation With Posterior Plating Versus A Modified Anterior-posterior Four Screw Construct: A Cadaveric Biomechanical Study

Jonathan Liu; Noah Gilreath; Phillip Schmitt; Kathryn Segal; Michael Shipp; Rachel Schilkowsky; Janine Molino; Edward J. Testa; Brad Blankenhorn; Raymond Hsu

Poster No. 741

Biomechanical Analysis Of Bioconductive Copolymer-augmented Broström Anterior Talo-fibular Ligament Repair And Native Atfl: A Cadaveric Pilot Study

Jesse Raszewski; Shea Maxey; Carey Clark IV; Sabir Ismaili; Michael C. Greaser

Poster No. 742

Restricting Access To Care By Using Body Mass Index As Eligibility Criteria For Total Ankle Arthroplasty

Madison Balagtas; Nicole Huang; Ryan LeDuc; Nnadozie Ekweariri; Kamran Hamid; Michael Pinzur; Adam Schiff

Poster No. 743

Hindfoot Kinematics During Simulated Level Walking After Combined Spring Ligament And Interosseous Talocalcaneal Ligament Repair

Jeffrey Hoffman; Cesar de Cesar Netto; Ricardo Villar; Scott Ellis; Jonathan Deland; Brett Steineman

Poster No. 744

Increased Odds Of Perioperative Complications After Ankle Fracture Fixation In Patients With Lower Extremity Amputations

Lucas Y. Kim; Jonathan N. Grauer

Poster No. 745

A Novel Method To Determine Ankle Flexion Range Of Motion In Total Ankle Arthroplasty

Megan V. Yip; Phong Diep; Jon W. Miles; Zachary Tupper; Matthew Hamilton; Scott Gulbransen; Sarah Melvin

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-053 Tendon and Ligament - Diseases and Disorders

Poster No. 746

Matrix Microarchitecture Drives Cellular Function And Extracellular Vesicle Proteome In Engineered Tendon Models

Kariman Shama; Zachary Greenberg; Mei He; Brittany Taylor

Poster No. 747

Tenosynovial Histopathology Mirrors Molecular Profiles And Clinical Outcomes In Peroneal Tendon Disease

Julia Matthias; Nicholas Austin; Sara Buckley; Samuel Stark; Michael David; Mike Zuscik; Helena Jonsson; Kenneth Hunt

Poster No. 748

Impact Of A Rage Antagonist On Tendon Biomechanical Properties In A Mouse Model Of Type 2 Diabetes

Harrison Cottingham; Talayah Johnson; Gordon Smilanich; Nathaniel Dymont; Chad Carroll

Poster No. 749

Induced Multipotent Progenitor Cells Prompt Healing Of Injured Tendon-bone Interfaces

Mason Horne; Claire Li; Ramon DeJesus; Kirsty Dixon; Ru Li

Poster No. 750

Workload As A Risk Factor And Predictor Of Outcomes After Achilles Tendon Rupture In NBA Athletes: A 25-year Retrospective Analysis

Patrick Waldron

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-054 Tendon and Ligament - Growth, Development and Aging

Poster No. 751

Spatial Transcriptomics Revealed Molecular Control Of Tenogenic And Fibrocartilaginous Formation In Enthesis Development

Yuxin Wang; Haixiong Lin; Rao Ying; Kam Hei So; Dan Michelle Wang

Poster No. 752

MRTF/SRF Signaling Is Required For Postnatal Tendon Maturation

Emily R. King; Hui Zhang; Brendon M. Baker; Alice H. Huang

Poster No. 753

Identification Of Novel Transcription Factors For Developing Tendons

Abinaya Anbuchelvan; Alice Huang

Poster No. 754

Dynamic Muscle Loading Is A Key Regulator Of Embryonic Tendon Cell Proliferation And Matrix Deposition

Emily R. King; Joanna Smeeton; Alice H. Huang

Poster No. 755

Follistatin Antagonizes Myostatin-mediated Promotion Of Tenocyte Differentiation In Mesenchymal Stem Cells

Yo Kitamura; Masanori Hayashi; Hiroko Iwakawa; Jun Takahashi

Poster No. 756

Patellar Tendon Morphology And Biomechanics Across The Adult Female Lifespan

Gordon C. Smilanich; Aidan T. Hopwood; Lauren E. Mitevski; Harrison M. Cottingham; Eric J. Gutierrez; Nathan WC Campbell; Chad C. Carroll

Poster No. 757

Characterization Of Natural Aging In Mouse Achilles Tendons

Samantha Muscat; Elsa Lecaj; Lindsay Schnur; Mark Buckley; Anne Nichols

Poster No. 758

Aging-associated Epigenomic Reprogramming Promotes Inflammatory And Catabolic Responses In Tenocytes

Tyler E. Blanch; Ellen Y. Zhang; Seongwoo Kim; Bat-Ider Tumenbayar; Xi Jiang; Inkyung Jung; Nathaniel A. Dymont; Su Chin Heo

Poster No. 759

Delayed ACL Maturation Compared To Menisci During Skeletal Growth Implications For Knee Instability And ACL Injury Risk

Mahdi Aghaalikhani; Mack Hurley; Biya Brook; Alexandra Santos; Nazgol Tavabi; Mohammadreza Movahhedi; Ata M. Kiapour

Poster No. 760

A Novel Silk-based Scaffold Patch Enhances Tendon Regeneration In A Preclinical Rotator Cuff Model

Andreas Teuschl; Xavi Monforte Vila; Karl Kropik; Angelika Schwarz; Michael Plecko; Thomas Nau

Poster No. 761

Aging Disrupts Non-collagenous Mediators Of Tendon Structure During Mechanical Adaptation

Emma J. Stowe; Brianne K. Connizzo

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-055 Tendon and Ligament - Injury and Healing

Poster No. 762

Single-cell Sequencing Of The ACL Graft-bone Tunnel Interface In Patients Undergoing Revision ACL Reconstruction

Sidharth Ranga; Ping-Chun Yeh; Alexander Piacentini; Ryan Schreiner; Yurii Chinenov; David Oliver; Shahin Rafii; Robert Marx; Scott Rodeo

Poster No. 763

Lubricin/prg4 Expression In Equine Flexor Tendons Is Greater In Intrasynovial Regions And In Tendon Injury

Heidi L. Reesink; Matthew J. Woodman; Matthew Thomas; Marshall J. Colville; Sushmitha Durgam; Sean P. McDonough

Poster No. 764

Evaluating The Effectiveness Of Arch Supports For Plantar Fasciitis: Insights From Patient-reported Outcomes, Advanced Imaging, And Finite Element Analysis

Atta Taseh; Omer Subasi; Bedri Karaismailoglu; Kelsey Detels; Samir Ghandour; Carl Rai; Gregory Waryasz; Soheil Ashkani-Esfahani; Adam Scott Landsman

Poster No. 765

Shared And Unique And Molecular Features Of Torn Anterior Cruciate Ligament And Matched Patella Tendon Autograft

Tracy Boakye Serebour; David Oliver; Camilla B. Carballo; Krishna Pedaprolu; Hugo Stern; Sarah J.B. Snelling; Scott Rodeo; Claire Eliasberg

Poster No. 766

NLRP3 Inflammasome Suppresses Enthesis Regeneration Through Inflammatory And Metabolic Macrophages-stem Cells Crosstalk

Haihan Gao; Liren Wang; Yangbao Lyu; Xin Ma; Shen Liu; Jia Jiang

Poster No. 767

Mechanical Unloading Attenuates The Innate Immune Response To Impair Enthesis Regeneration In Adult Zebrafish

Ella J. Kim; Jason C. Marvin; Ben Peterson; Maddie Burke; Jenna L. Galloway

Poster No. 768

Cellular Drivers Of Regeneration And Fibrosis In Connective Tissue Repair

Elisabeth Landis; Penn Sagedahl; Chelsea A. Wu; Claire Desrochers; Shannon Holmberg; Anne Gingery

Poster No. 769

Validation Of Non-invasive Mouse Model Of Posterior Cruciate Ligament Injury With Manual Procedure Applying Posterior Force To The Tibia.

Taizo Hatano; Yusuke Nakagawa; Toyohiro Katsumata; Shoichi Hasegawa; Masaki Amemiya; Mai Katakura; Ryohei Takada; Tomomasa Nakamura; Ichiro Sekiya; Kunikazu Tsuji; Hideyuki Koga

Poster No. 770

Machine Learning Segments And Classifies Rat Achilles Tendon And Peritendinous Tissues In Quantitative MRI

Michael A. David; Christopher R. Orear; Julia Matthias; Daniel K. Moon

Poster No. 771

Autophagy Inhibition Impairs Tenocyte Survival And Functional Recovery In Achilles Tendon Healing

Koki Yamazaki; Yoshiyuki Senga; Akinobu Nishimura; Naoya Ito; Yuki Fujikawa; Tomoki Terada; Masahiro Hasegawa

Poster No. 772

Hormonal Hazards To The Knee: Comparative Analysis Of Estrogen, Progestogens, And Acl Injury Risk?

Amari Eubanks; Rawan Elkomi; Mekdem Bisrat; Elizabeth Beyene; Miriam Michael

Poster No. 773

Anterior Cruciate Ligament Reconstruction And Mental Health: A Bidirectional Relationship

Eoin J. Devoy; Karim Belal; William Wind; Lia Lamonica; Abigail Bisson; Thomas Toole; Leslie Bisson; M. Nadir Haider

Poster No. 774

Glycosaminoglycans Accumulate During Proliferation But Minimally Affect Tensile Mechanics During Mouse Achilles Tendon Healing

Jonathon Blank; Stephanie Weiss; Mengcun Chen; Rebecca Betts; Emily Hoff; Jeremy Eekhoff; Lou Soslowsky

Poster No. 775

Withdrawn

Poster No. 776

Cyclic Loading Duration And Recovery Dynamics Drive Early Degenerative Programs In Tenocytes

Angelina L. Santos; Yuna Heo; Catherine Cheung; Su Chin Heo

Poster No. 777

Time-dependent Crosstalk Between Tendon Stem/progenitor Cells And Macrophages In Tendon Healing

Chang H. Lee; MD Sarker; Chen Zong

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-056 Tendon and Ligament - Structure, Function and Mechanics

Poster No. 778

Region-specific Mechanical Adaptation Of The Periodontal Ligament During Orthodontic Tooth Movement

Matthew T. Lim; Daniel M. Lapinski; Ashley Zhang; Gili Naveh; Brianne K. Connizzo

Poster No. 779

Distinct And Synergistic Roles Of Collagens V And XI In Structural And Mechanical Recovery During Tendon Healing

Mengcun Chen; Jeremy D. Eekhoff; Nat A. Thurlow; Stephanie N. Weiss; Nathaniel A. Dymont; Lou J. Soslowsky

Poster No. 780

Investigating The Effects Of Injury And Exercise In Modulating Achilles Tendon Fluid Clearance

Jarod M. Forer; Simon Aguilar Auld; Kaitlyn Link; Michael E. Hahn; Nick J. Willett

Poster No. 781

Differences In 3D Collagen Fibril Structure With Tendon Type And Health Are Revealed Using SBF-SEM Combined With Machine Learning Automated Segmentation And Reconstruction

Kelsey Y. Gsell; Lily M. Lin; Jamie M. Benson; Chandran Sabanayagam; Jeffrey Caplan; Dawn M. Elliott

Poster No. 782

Stress Concentration With Quadriceps Tendon Graft Harvest

William Gamble; Anja Wackerle; Armin Runer; Svenja Hoger; Michael Smolinski; Mark Carl Miller; Volker Musahl; Patrick Smolinski

Poster No. 783

Increased Quadriceps Tendon Elongation After Autograft Harvest May Affect Muscle Force And Postoperative quadriceps Weakness

William Gamble; Anja Wackerle; Armin Runer; Svenja Hoger; Michael Smolinski; Mark Carl Miller; Patrick Smolinski; Volker Musahl

Poster No. 784

Exploring The Cellular And Molecular Landscape Of The Healthy Human Patellar Tendon At A Single-cell Resolution

Tracy Boakye Serebour; Camila Carballo; Krishna Pedaprolu; Hugo Stern; David Oliver; Sarah Snelling; Scott Rodeo; Claire Eliasberg

Poster No. 785

Autosegmentation Of The Attachment Sites Of The ACL Utilizing Two Planes Of MR Imaging

Jefferson R. Bercaw; Jay P. Willhite; Olivia C. O'Reilly; Robert T. Tisherman; Meghan Gill; Roarke W. Horstmeyer; Jocelyn R. Wittstein; Charles E. Spritzer; Louis E. DeFrate

Poster No. 786

Achilles Tendons Maintain Homeostasis In Response To Physiological Load Via Spatially-distinct Cellular Processes

Samantha Muscat; Elsa Lecaj; Nolan Sparks; Mark Buckley; Anne Nichols

Poster No. 787

Quantifying Mechanoreceptors With IHC Staining In An Intact Porcine ACL

Anika N. Breker; Crystal J. Murray; Benedikt L. Proffen; Jillian E. Beveridge; Braden C. Fleming

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-057 Tendon and Ligament - Treatment and Therapeutics

Poster No. 788

Mobility, Metabolic, And Extracellular Matrix Protein Changes Associated With Murine Achilles Tendon Mechanical Overuse Strain

Alex Stigall; Devin Denkers; Hailey Brown; Maya Knowles; Emily Van Zeeland; Katie Sikes

Poster No. 789

Biomechanical Evaluation Of SpeedBridge Configurations For Rotator Cuff Tendon Repair

Christian J. Tacogue; Yiwen Zhao; Chunfeng Zhao

Poster No. 790

Regenerative Potential Of Lyophilized Exosomes From Umbilical Cord Stem Cells In Injury Anterior Cruciate Ligament Cells

Cheng-Chang Lu; Hon Lok Lo; Lih-Ru Fang; Shun Cheng Wu

Poster No. 791

Comparative Analyses Of Adipose-derived Stromal Cells, Secretome, And Platelet-rich Plasma In Tendon Healing

Pauline Po Yee Lui; Xinyu Ma; Yaoqin Li; Patrick Shu Hang Yung; Haining Liu; Katie Tsz Yan Mok; Angel Yuk Wa Lee

Poster No. 792

A Single High-Dose Of ADSCs And Their Secretome Demonstrated Comparable Histological Outcomes At Early Stage Of Tendon Healing

Pauline Po Yee Lui; Yaoqin Li; Xinyu Ma; Patrick Shu Hang Yung; Haining Liu; Katie Tsz Yan Mok; Angel Yuk Wa Lee

Poster No. 793

Orantinib Treatment Does Not Improve Functional Adult Tendon Healing

Elaine A. Nagahara; Angela M. Montero; Deepak A. Kaji; Kristen Howell; Hui Zhang; Alexander Lachmann; Avi Ma'ayan; Alice Huang

Poster No. 794

Adiponectin Receptor Agonists Redirected The Pathological Trajectory Of Tendinopathy From Inflammation To Tendon Regeneration

Katie Tsz Yan Mok; Pauline Po Yee Lui

Poster No. 795

Extracellular Vesicles Derived From Three-dimensional Culture Of Adipose-derived Stromal Cells Using Coaxial Bioprinting Method Showed Superior Effects On Tendon Healing Compared To Two-dimensional Monolayer Culture

Haining Liu; Tao Xu; Jianwei Chen; Pauline Po Yee Lui

Poster No. 796

Oxygen-dependent Regulation Of Tendon Extracellular Matrix

Stephanie Steltzer; Nicole Migotsky; LeeAnn Hold; Yatrik Shah; Adam Abraham; Megan Killian

Poster No. 797

Hyperoxia-driven Modulation Of Tendon Healing: Insights From In Vitro And In Vivo Models

Afton Limberg; Calista Adler; Frances Faro; Jay Buckley Jr.; Katherine Hixon; Douglas Van Citters

Poster No. 798

Efficacy And Safety Evaluation Of A Novel Cross-linked Chondroitin Sulfate (SI-449) In Rat Flexor Digitorum Longus Tendon Adhesion Models

Madoka Higa; Akinobu Tsuchihashi; Yasuaki Isoda; Katsuya Takahashi; Dai Muramatsu; Keiji Yoshioka; Michiro Yamamoto

Poster No. 799

Pathway-level Expression Differences In Tenocytes Associate With Phenotypic Variation Between Canonical And Regenerative Healing

Wendy S. Zimmerman; Jason C. Marvin; Nelly Andarawis-Puri

Poster No. 800

Losartan-loaded Nanofibers Attenuate Postoperative Adhesion And Enhance Tendon Healing After Tendon Repair

Shintaro Mukohara; Kohei Yamaura; Nicholas Sather; Shelby Yuan; Keisuke Nakayama; Haruki Nishimura; Kiminari Kataoka; Chelsea Bahney; Marc Philippon; Samuel I Stupp; Johnny Huard

Poster No. 801

Evaluating The Effectiveness Of Type I Collagen-glycosaminoglycan In Reducing Adhesions After Tendon Repair

Rou Wan; Cheng-En Jacob Hsu; Omar Selim; Ken Nishimura; Ramona Reisdorf; Maggie Brosig; Chunfeng Zhao; Steven Moran

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-058 Biomaterials - Controlled Release

Poster No. 802

Comparative Analysis Of Human And Pig Skin Permeation Of Metformin Lotion Formulations

Celina Zhao; Jianying Zhang; Vasyli Pastukh; James Wang

Poster No. 803

Postdoctoral Researcher, Center Of Experimental Orthopedics And Osteoarthritis Research, Saarland University Medical Center, Saarland University, Germany. Associate Professor, Department Of Pharmacology & Toxicology, Faculty Of Pharmacy, Cairo University, Egypt

Mostafa Rabie; Jagadeesh Venkatesan; Gertrud Schmitt; Henning Madry; Veronique Migonney; Magali Cucchiaroni

Poster No. 804

Integrin Targeting Enhances Uptake Of Fluorescent Silica Nanoparticles By Chondrocytes In Cartilage Tissue

Aiyana G. Fortin; Zongyin Dong; Hamilton M. Young; Ulrich B. Wiesner; Lawrence J. Bonassar

Poster No. 805

Pharmacokinetic Modeling Of An Intra-wound Therapeutic Delivery Device

Alex R. Madsen; Dustin Williams; Robert Falconer; Brian Barnum; Nicholas Ashton

Poster No. 806

Spatial Control Of Composite Musculoskeletal Tissue Regeneration Using Magnetic Microgels

RunRun Chen; Martin H. Liu; Yunpeng Tu; Woojin M. Han; Feini Qu

Poster No. 807

Development Of Super-lubricious Platelet-rich Plasma Loaded Microgels For The Treatment Of Knee Osteoarthritis

Samuel Stealey; Yousef Abu-Amer; Paul Jelliss; Silviya P. Zustiak

Poster No. 808

Efficient Loading Of MSC-EVs Into Platelet Gels

Enrico Ragni; Michela Maria Taiana; Paola De Luca; Simona Landoni; Alessandra Colombini; Federico Valli; Leonardo Mortati; Arianna Lovati; Giuseppe Talò; Matteo Moretti; Laura Mangiavini; Stefania Niada; Giuseppe Peretti; Laura De Girolamo

Poster No. 809

Evaluating Micromotion In Tibiotalar Joint Total Ankle Implant Designs

Isabella Santarpia; Ronit Avadhuta; Ivy Lee; Deniz Keles; Omer Subasi; Kendal Toy; Soheil Ashkani-Esfahani

Poster No. 810

Efficacy Of A Postoperative Anti-adhesion Barrier Derived From Novel Cross-linked Chondroitin Sulfate In A Rat Sciatic Nerve Adhesion Model

Akinobu Tsuchihashi; Yasuaki Isoda; Katsuya Takahashi; Dai Muramatsu; Keiji Yoshioka; Madoka HIGA; Michiro Yamamoto

Poster No. 811

Physiologic TGF- β Yields Functional Engineered Cartilage While Mitigating Hypertrophy For Expanded Chondrocytes

Enkhjargal Budbazar; Jason Gashi; Christian Romer; Seung-Jean Kang; Michael B. Albro

Poster No. 812

An In Situ Forming Hydrogel For The Controlled Intra-articular Delivery Of Losartan

Ashley N. Payne; Jimmy E. Colletti; Mason F. Carstens; Mark E. Morrey; Joaquin Sanchez-Sotelo; Daniel J. Berry; Roman Thaler; Matthew P. Abdel

Poster No. 813

Hyaluronic Acid With Tunable Amphiphilicity For Therapeutic Delivery

Shing-Yun Chang; Aidan P. McAnena; Joshua Kim; Jie Song

Poster No. 814

Thermal-responsive Sustained Release Of Nav1.7 Inhibitor For Osteoarthritis Therapy

Jingwei Bi; Wenyu Fu; Lida Moradi; Xinyu Yang; Chuan-ju Liu

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-059 Biomaterials - Orthopaedic Implant Materials

Poster No. 815

Enhanced Tribocorrosion Resistance Of 3D Printed Ti- Implants: PVD Multilayer Coating On PEO-Treated Surface

Marzieh Ebrahimi Dashti; Ahmad Kermanpur; Mahshid Kharaziha; Mareeswari Paramasivan; Hesam Rezvani Sichani; Mathew Mathew

Poster No. 816

Evaluation Of Biodegradable Metal Bone Graft Material In Vivo

Jumpei Natsui; Yoshinobu Oka; Ryo Maekawa; Hiroaki Wada; Wook-choel Kim; Yusuke Hono; Sadami Tsutsumi; Takashi Koizumi; Shunji Yamada; Ken Ichi Matsuda; Kenji Takahashi

Poster No. 817

Influence Of Zinc Coating On Bone Volume Loss And Mechanical Stability Across Different Screw Designs In A Cadaveric Rabbit Femur Model

Badhan Saha; Farzad Abdi; Andrew Cagliostro; Chet S. Friday; Karl Hoenecke; Anna M. Massie; Michael W. Hast

Poster No. 818

Effects Of Particle Size And Demineralization Time On BMP-2, -4, And -7 In Demineralized Bone Matrix

Tiana N. Anthony; Vedran Lovric; Rema Oliver; Frank Vizesi; William R. Walsh

Poster No. 819

A Comparison Of The Host Inflammatory Response Between Peptide Amphiphile-based Scaffolds And Recombinant BMP-2 In A Rat Model

Tony Y. Lee; Samuel Liu; Iyad Ali; Giancarlo Riccobono; Eddie Zhou; Cole Christenson; Avani Chopra; Frances Akwuole; James MacLeod; Yianni Bakaes; Jinyuan Li; Hussain Sangji; Charlotte Chen; Nicholas Sather; Samuel I. Stupp; Stuart R. Stock; Romie Gibly; Wellington K. Hsu; Erin L. Hsu

Poster No. 820

Insoluble Type II Collagen As A Novel Scaffold Material For Articular Cartilage Tissue Engineering

Kevin Caparino; Patrick LeMarble; Shu-Tung Li

Poster No. 821

Assessment Of The Biodegradation Rate Of Novel Peptide Amphiphile-based Implants

Cole Christenson; Iyad Ali; Tony Y. Lee; Giancarlo Riccobono; Samuel Liu; Eddie Zhou; James S. MacLeod; Yianni Bakaes; Frances A. Akwuole; Avani A. Chopra; Jinyuan Li; Hussain Sangji; Charlotte Chen; Nicholas Sather; Samuel I. Stupp; Stuart R. Stock; Romie F. Gibly; Wellington K. Hsu; Erin L. Hsu

Poster No. 822

A Cost-Effective Approach To Enhance Peek Roughness And Osteoblast Adhesion Using Sodium Chloride As A Pore-forming Agent

Bailey Doucette; Mitchell Kenter; Alimohammad Haji Adineh; Simin Masihi; Massood Atashbar; Adil Akkouch

Poster No. 822A

Mineral Ion Release And Antimicrobial Properties Of Biointegrative Implants

Orly Zeituni-Timor; Orah Preiss-Bloom; Ronit Merchav-Feuermann

Poster No. 823

Biomechanical Analysis Of Screw Fixation In Cortical Bone Following Therapeutic Levels Of X-irradiation

Divakar N. Lal; Kenneth A. Mann; Megan E. Oest; Timothy A. Damron

Poster No. 824

Effect Of Zinc-coated Titanium Implants On Neutrophil Swarming And S. Aureus Clearance

Sashank Lekkala; David Armbruster; Rajendra Kasinath; Edward Schwarz; Chao Xie

Poster No. 825

Retrieval Analysis Of Metal-on-metal Lateral Lumbar Total Disc Replacements

Nicholas Lamb; Sophia Sangiorgio; Edward Ebramzadeh; Sang-Hyun Park; Jarod Carol

Poster No. 826

EchAMP-functionalized Scaffold Eliminates Infection And Promotes Bone Regeneration Via Immunometabolic Reprogramming

Ye Peng

Poster No. 827

Development And Characterization Of Seleno-compound Incorporated Mesoporous Bioactive Glass With Antibacterial Activity Against Mrsa For Osteomyelitis Treatment

Tien-Ching Lee; Li-Ting Kao; Tsung-Ying Yang

Poster No. 828

Chronically Controlled Degradation Of Magnesium Alloy Screws By Hydrophobic Composite Coating: Long-term Animal Study And Clinical Results

Chen Shi; Shu Wang; Zhenxing Liu; Shilong Wang; Tianqing Hao; Wei Han

Poster No. 829

Methods To Quantify In Vivo Osseointegration Of Porous Metallic Implants

Bo Gao; William Walsh; Matthew Pelletier; Tian Wang; Dan Wills; Andrea Gardner; Luis Alvarez

Poster No. 830

In Vivo Osseointegration Of Two Types Of Porous Metallic Implants

Bo Gao; William Walsh; Matthew Pelletier; Tian Wang; Dan Wills; Andrea Gardner; Luis Alvarez

Poster No. 831

In Vivo Evaluation Of A Biodegradable Magnesium Implant

Ryo Maekawa; Yoshinobu Oka; Jumpei Natsui; Hiroaki Wada; Wook-Cheol Kim; Yusuke Hono; Sadami Tsutsumi; Takashi Koizumi; Shunji Yamada; Ken Ichi Matsuda; Kenji Takahashi

Poster No. 832

Versatile Polypeptide-anchored Antifouling Dip-coatings For Common Medical Implant Materials

Rahul R. Nisal; Jie Song

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-060 Biomaterials - Repair / Replacement of Hard Tissues

Poster No. 833

Withdrawn

Poster No. 834

Oxy133 As A Novel Osteoinductive Agent: A Preclinical Evaluation Of Bone Regeneration Compared To Rhbmp-2 In A Critical-sized Rat Femoral Defect Model

Marc A. Abdou; Matthew C. Gallo; Nicole Hang; Mirbahador Athari; Hua Shen; Fergui Hernandez; Farhad Parhami; Raymond J. Hah; Jeffrey Wang; Ram K. Alluri

Poster No. 835

Mitochondria-targeted Single-atom Nanozymes Reprogram Stem Cell Metabolism To Accelerate Bone Regeneration

Yuwen Wang; Xinzhi Liang; Tiandi Xiong; Zheng Zhong; Denghui Xie; Rocky Tuan; Zhong (Alan) Li

Poster No. 836

Withdrawn

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #:

PS1-061 Biomaterials - Repair / Replacement of Soft Tissues

Poster No. 837

Cationic Insulin-like Growth Factor 1 For Cartilage-targeted Osteoarthritis Therapy

Bill Hakim; Timothy L. Boyer; Divya Ravikumar; Ambika G. Bajpayee

Poster No. 838

Enhancing Tendon Regeneration With Mechanically Reinforced Hydrogel For Stem Cell Therapy

Yuanhao Zhang; Wanqi Zhang; Ying Rao; Elmer Dai Fei Ker; Dan Michelle Wang

Poster No. 839

Acute Toxicity Evaluation On A Novel Transdermal Metformin Lotion For Tendinopathy Treatment

Jianying Zhang; Vasyi Pastukh; Celina Zhao; Liyang Chen; Soichi Hattori; Kentaro Onishi; MaCalus Hogan; James Wang

Poster No. 840

Dermabond Significantly Increases Tensile Strength Of Common Surgical Sutures

Morgan Brown; Donald Sorrells; Jonathan S. Alexander; Alan L. Ogden; Giovanni Solitro

Poster No. 841

Dose-dependent TGF- β 1 Signaling Guides Cartilage Typing And Chondrogenesis In Human Periosteum

Richard H. Liu; Kathy Cao; Caleb Witsken; Weijia Zhou; Cade Hines; Caroline Keller; Trey Philipp; Kaleb Patterson; Spencer Myres; Mahir Kota; Sai Prasada Rao Manikonda; Carl Suerte; Lorenzo Deveza

Poster No. 842

Nanoparticle-driven Tendon Repair: Role Of Vasoactive Intestinal Peptide In Immune Modulation And Stem Cell Enhancement

Yucheng Gao; Liu Shi; Hao Wang; Chuwei Tian; Yunfeng Rui

Poster No. 843

AAV (adeno-associated Virus)-attached Allogenic Nerve Graft To Promote The Nerve Regeneration In Peripheral Nerve Defects

Su-Eun Yang

Poster No. 844

Gradient Mechanical Microenvironment Promotes Interface Regeneration By Regulating Ca²⁺ Channel

Shiyi Yao; Hanyu Wang; Lei Wang

Poster No. 845

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

Yongxin Mai; Hsuan Yu Chen; Weizhe Zhang; Samuel E. Broida; Chunfeng Zhao

Poster No. 846

An Autophagy-sensitive Nanoplatfrom Via Chirality-selective Modulation For Functional Peripheral Nerve Repair And Target Organ Homeostasis

Lingchi Kong; Xiangyun Yao; Zhixuan Kang; Cunyi Fan

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-062 Biomaterials - Scaffolds

Poster No. 847

Scaffold-mediated Delivery Of Inducible Bmp2-lentivirus Promotes Atrophic Nonunion Fracture Healing Without Excessive Ossification

Leyi Chen; Yu Seon Kim; Katherine Hixon; Nicole Gould; Andre Coello; Mariam Obajji; Farshid Guilak; Matthew Silva

Poster No. 848

Biodegradable, Fibrous Gelatin Scaffolds With Tunable Piezoelectricity Promote Cartilage Formation Under Mechanical Loading Conditions

Yasaman Aghli; Treena Arinzeh

Poster No. 849

Engineering Functional Tendon Scaffolds Via Biochemical And Mechanical Stimulation In A Clip-rotation System

Lin Xu; Zizhao Li; Se-Hwan Lee; Sung-Han Jo; Su Chin Heo

Poster No. 850

Biomechanical And Cellular Evaluation Of Autologous Fibrin Glue (cryoseal) For Tissue Adhesion And Mesenchymal Stem Cell Proliferation

Akira Kawai; Tomoya Iseki; Toshiya Tachibana

Poster No. 851

Multi-gradient Osteochondral Unit-on-a-chip To Investigate Bone-cartilage Crosstalk In Osteoarthritis

Jun Liu; Zhong Alan Li

Poster No. 852

Novel Method For Preservation Of Poly-Caprolactone Scaffolds In FFPE Histology

Scott L. Korte; Julie B. Engiles; Marina M. Santos; Andrew Kitson; Brandon A. Krick; Holly Stewart; Lesley W. Chow; Thomas P. Schaer

Poster No. 853

Dynamically Tunable Substrates To Probe Tendon Pathophysiology

Connor P. Virgile; Thomas Manzoni; Alexandra Misikova; Justin Parreno; Joohyun Lim; Elise Corbin

Poster No. 854

Development Of A 3D-printable PMMA-based Bone Cement Composition

Gregory Schneider; Vivek Bilolikar; Duncan Van Nest; Praveen Solomon; Naomi Gross; John Handal; James Raphael

Poster No. 855

Using Chondrocyte Redifferentiation As A Tool To Develop Insoluble Type II Collagen Microfiber Scaffolds For Articular Cartilage Regeneration

Shuanhu Zhou; Kevin Capariño; Patrick LeMarble; Shu-Tung Li

Poster No. 856

Bioprinting Of Phenotypically Defined Fibrocartilage Microtissues Into Melt Electrowritten Scaffolds To Engineer Regionally Defined Meniscal Grafts

Gabriela Kronemberger; Francesca D. Spagnuolo; Tosca Roncada; Kaoutar Chattahy; Aliaa Karam; Max Wirth; Daniel Kelly

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-063 Education and Outreach - Clinical Education

Poster No. 857

Navigating Neuroclinical Information: A Comparative Analysis Of LLM And Google Search Quality For Patient Queries On BMP-2

Jonathan P. Japa; Shankar Thiru; Nicholas E. Aksu; Jamie Lee; Mark Ehioghae; Kevin Yoon; Aaron Phung; Justin Hyde; Sean Bae; Ala Alshomali; Addisu Mesfin

Poster No. 858

A Quality Review Of Fluoroscopy Time As A Surrogate For Radiation Exposure During Intramedullary Nailing Of Tibia, Femur, And Hip

Aaron Williams; Diwane Mills; Lisa Cannada

Poster No. 859

Integrating Point Of Care Ultrasound Into Orthopedic Residency: A Longitudinal Evaluation

Sami Chergui; Mostafa Al-habboubi; Paul Brisebois; Anthony Albers

Poster No. 860

Withdrawn

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-064 Imaging - Hard Tissue

Poster No. 861

SPECT/CT Diagnostic Performance After Fusion: Does Patient Sex Matter?

Walker C. Welch; Alejandro Venable-Croft; Neel N. Patel; Audrey C. Korte; William G. Burks; Caitlyn J. Collins; Jonathan J. Carmouche

Poster No. 862

Utility Of Preoperative Site-specific Bone Mineral Densitometry In Periprosthetic Fracture After Primary Total Hip Arthroplasty: A Propensity Matched Analysis

William Sampson; Muhammad Hamza Ilyas; Isaiah Freeman; Carlo Mannina; Sina Afzal; Hahn Kang; Michelle Shimizu; Zhijun Li; Margaret Arthur; Oh-Jak Kwon; Oh-Joon Kwon; Pengwei Xiao; Young-Min Kwon

Poster No. 863

Utility Of Preoperative Of Bone Mineral Densitometry In Periprosthetic Fracture After Primary Total Knee Arthroplasty: A Propensity Matched Analysis

William Sampson; Muhammad Hamza Ilyas; Isaiah Freeman; Carlo Mannina; Sina Afzal; Hahn Kang; Michelle Shimizu; Zhijun Li; Margaret Arthur; Oh-Jak Kwon; Oh-Joon Kwon; Pengwei Xiao; Young-Min Kwon

Poster No. 864

Variability Of CT-Based Regions Of Interest In The Proximal Humerus For Densitometric Evaluation

Alexandra Nolen; Victoria Todman; Malcolm Goldsby; Audrey Welch; Benjamin Lee; Mario Lobao; Giovanni Solitro

Poster No. 865

¹⁸F-FDG PET/CT Imaging Of Molecular Activity In Bone: Associations With Degenerative Risk Factors

Talha Khan; Benjamin Dosan; Gurjant Sekhon; Shiv Patil; William Lee; Darshil Patel; Ondrej Fanta; Poul Højilund-Carlsen; Abass Alavi

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-065 Imaging - Image Analyses

Poster No. 866

Evaluation Of A Fine-tuned Vision-language Model For Automatic Generation Of Lumbar Spine Mri Reports

Mattia Perrone; John Martin

Poster No. 867

AI-Enhanced Dynamic Digital Radiography For Accurate Detection Of Bony Landmarks During Shoulder Abduction

Ryota Wakamatsu; Issei Shinohara; Atsuyuki Inui; Yutaka Mifune; Kohei Yamaura; Masaya Kusunose; Shuya Tanaka; Shunsaku Takigami; Yutaka Ehara; Shin Osawa; Daiji Nakabayashi; Takanobu Higashi; Ryosuke Kuroda

Poster No. 868

Deep Learning-based Markerless Motion Tracking As A Cost-effective Alternative For Large Animal Gait Analysis

Farzad Abdi; Badhan Saha; Jacob Sommer; Isabel Kehoe-Huck; Karl Hoenecke; Zoe Araujo; Anna M. Massie; Kimberly A. Agnello; Michael W. Hast

Poster No. 869

An Automated MicroCT-based Methodology For Quantification Of Bridging Bone In A Rodent Spine Fusion Model

Cole Christenson; Iyad Ali; David Hiltzik; Avani Chopra; Tony Lee; Giancarlo Riccobono; Samuel Liu; Frances Akwuole; James MacLeod; Yianni Bakaes; Andrew Furman; Wellington Hsu; Erin Hsu; Stuart Stock; Romie Gibly

Poster No. 869A

Validation Of The Coronal Plane Alignment Of The Knee Classification For Short-leg Anteroposterior Weight-bearing Radiograph With Use Of Anatomic Axis Measurements

Alex Bradham; Thomas Bradbury; Natalie Gresham; Charlotte Baker; Zachary Riccardelli; Joseph M. Schwab

Poster No. 870

Supine And Standing Pelvic Radiographs Yield Significantly Different Measurements In Femoroacetabular Impingement And Hip Dysplasia: A Systematic Review And Meta-analysis

Jacob D. Kodra; Sophia Marinelli; Kevin Girardi; Serkan Surucu; Andrew Schab; James MacLeod; Jay Moran; Rajiv Vasudevan; Renato Locks; Andrew E. Jimenez

Poster No. 871

DINO-Ortho: Self-supervised Pretrained Neural Network For Orthopedic Image Classification

Rohan Bagchi; Nicholas J. Yee; Soheil Ashkani-Esfahani; Atta Taseh

Poster No. 872

Relationship Between Coronal Alignment And Medial Meniscus Extrusion Following Acl Reconstruction

Dai Sato; Yuta Kawae; Taku Ebata; Koji Iwasaki; Tomohiro Onodera; Masatake Matsuoka; Eiji Kondo; Norimasa Iwasaki

Poster No. 873

Throwing Darts With The Aid Of 3d Imaging: A New Advancement In Percutaneous Pelvis Operations

Jennifer Hagen; Scott Banks; Andrew James Jensen; Christopher Gerzina; Paris Flood

Poster No. 874

Image Resolution Affects The Performance Of Deep Learning Algorithms In Detecting Calcaneus Fractures On X-ray

Nicholas J. Yee; Atta Taseh; Samir Ghandour; Mansur Halai; Cari Whyne; Christopher DiGiovanni; John Y. Kwon; Soheil Ashkani-Esfahani

Poster No. 875

Physics-informed Regularization For Mr Image Based Segmentation: Enabling Accurate And Fast Segmentation From Scarce Annotations

Negar Mehrabi; Geoffrey Handsfield

Poster No. 876

Latent Feature-enhanced Residual Unet For Accurate Segmentation Under Low Annotation Constraints

Negar Mehrabi; Geoffrey Handsfield

Poster No. 877

Quantitative Analysis Of Anterior Discectomy And Fusion Spine Using Fractal Dimension Analysis

Alejandro C.T. Venable-Croft; Walker Welch; Kate Watkins; Garret Burks; Jonathan J. Carmouche; Caitlyn Collins

Poster No. 878

Postoperative Impacts Of Reamer-irrigator-aspirator (ria) On Femoral Strength: A Finite Element Analysis

Ryota Nishida; Keisuke Oe; Tomoaki Fukui; Yohei Kumabe; Kenichi Sawauchi; Ryowa Mineo; Takehiro Konishi; Genta Fukumoto; Fnu Jonathan; Hyuma Kondo; Takahiro Niikura; Ryosuke Kuroda

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-066 Imaging - Soft Tissue

Poster No. 879

A Framework For Quantifying Tibial Cartilage Deformation After Activity In Vivo Via MRI

Sebastian Scofield; Benjamín A. Rodríguez Romo; Christopher Sica; Jorge Chahla; Philip Malloy; John Martin; Catherine Yuh; Steven P. Mell

Poster No. 880

Impact Of Infrapatellar Fat Pad Morphology And Mri Signal Intensity On Its Movement In Patients With Knee Osteoarthritis

Yuriko Okita; Masashi Morimoto; Kei Sato; Toshio Kawahara; Kanji Akiyama; Toshihiro Sadamatsu; Gamada Kazuyoshi

Poster No. 881

Diagnostic Accuracy Of Various MRI Protocols For Detecting Chondrolabral Junction Breakdown

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

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-067 Intervertebral Disc - Diseases and Disorders

Poster No. 882

Low-Magnitude High-Frequency Vibration Induces Catabolic Changes In Human Intervertebral Disc Independently Of Piezo1

Luisa de Roy; Claudia Goerlich; Astrid Schoppa; Melanie Haffner-Luntzer; Anita Ignatius; Cornelia Neidlinger-Wilke; Graciosa Q. Teixeira

Poster No. 883

Conditional Loss Of Cox-2 In Juvenile And Adult Mice Causes Osteoclast-mediated Spinal Disc Degeneration

David N. Paglia; Vijay Subramanian; Patrick Kelly; Roman Duchnycz; Aarush Kumar; Robert Belibrov; Daniel Garcia; Steven Munoz; Charlene Wetterstrand; Maya Scott; J. Patrick O'Connor

Poster No. 884

DDR1-mediated Regulation Of Inflammaging In Intervertebral Disc Degeneration

Chih-Ming Kao

Poster No. 885

Mapping The Nucleus Pulposus Secretome In Vivo: Insights Into Intervertebral Disc Homeostasis

Aditya Upadhyay; Gabriel Belen; Chitra Dahia

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-068 Intervertebral Disc - Growth, Development and Aging

Poster No. 886

Failed Lumbar Fusion Leads To Increased Markers Of Accelerated Biologic Aging

Yasmine K. Eichbaum; Jonathan Dalton; Rachel Huang; Matheus Moreira Perez; Abigail Tingstad; Oliver Abinader; Ramkrishna Mitra; Mitchell Ng; Jose A. Canseco; Alexander R. Vaccaro; Theresa Freeman; John A. Collins; Dessislava Z. Markova; Christopher K. Kepler

Poster No. 887

Early Intervertebral Disc Differentiation Is Robust To Stopping Notochord Cell Proliferation, And Brachyury Shows Regional Activity

Rose Long; Cliff Tabin

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-069 Intervertebral Disc - Injury, Healing and Pain

Poster No. 888

Interferon α/β Signaling Contributes To Local And Systemic Inflammation After Intervertebral Disc Injury

Lauren Lisiewski; Mark (Min Kyu) Kim; Nadeen Chahine

Poster No. 889

Withdrawn

Poster No. 890

Mature-like Intervertebral Disc Cells Compromise The Extracellular Matrix To Attenuate Injury-induced Inflammatory Signaling And Myeloid Cell Recruitment

Tori Kroon; Jazz Munitz; Anna Ranzenigo; Matrin Umali; William` Wang; Jonathan Huang; Abraham J.P. Teunissen; Nilsson Holguin

Poster No. 891

Thrombin Promotes Intervertebral Disc Degeneration Via Macrophage M1 Polarization And Angiogenesis In A Mouse Tail Puncture Model

Rikito Tatsuno; Takashi Ando; Taro Fujimaki; Yoshihiro Takayama; Tetsuro Ohba; Hirotaka Haro

Saturday, March 28, 2026

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Room #: Hall A

PS1-070 Intervertebral Disc - Structure, Function and Mechanics

Poster No. 892

Comparison Of Transport Properties Between Human And Tissue-engineered Vertebral Endplates

Brianna S. Orozco; Alexandra J. Baranyai; Matthew Fainor; Mohamed Habib; Aaron J. Fields; Sarah E. Gullbrand

Poster No. 893

Structural Analysis Of The Rat Intervertebral Disc Interface Regions Utilizing Fourier Transform Infrared Spectroscopy Imaging And Atomic Force Microscopy

Maho Koga; Leonardo Campos; Helen Lu; Nadeen Chahine

Poster No. 894

Lumbar Intervertebral Disc Compressive Strain Is Greater In Participants With Medium-impact Acute Low Back Pain Compared To Asymptomatic Controls

Nicole Zimmer; Andrzej Kosinski; Charles Spritzer; Adam Goode; Louis DeFrate

Poster No. 895

Distinguishing Disc Aging From Disc Disease: Mechanical Integrity And Proteinase Expression In Asymptomatic, Intervertebral Disc Degeneration, And Degenerative Scoliosis Samples

Mohammed A. Salaam; Manmeet Dhiman; Taylor Bader; Paul Salo; Ganesh Swamy; Neil Duncan; David Hart

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-071 Intervertebral Disc - Treatment and Therapeutics

Poster No. 896

Exploring TRPV4's Mechanosensitivity To Stiffness And Mechanical Loading In Annulus Fibrosus Mechanotransduction

Johannes Hasler; Mikkael Jozsef Lamoca; Gabbie Wagner; Kory Schimmelpfennig; Shuhuan Zhang; Wolfgang Hitzl; Sami Farajollahi; Vinay V. Abhyankar; Christopher L. Lewis; Rui Liu; Karin Wuertz

Poster No. 897

Annulus Fibrosus Progenitor Gene Signature Is Conserved In Human, Bovine, And Mouse Intervertebral Discs

Levon Rodriguez; Timothy Jacobsen; Robert Sebra; James Iatridis

Poster No. 898

Marrow-isolated Adult Multilineage Inducible Cell-derived Extracellular Vesicles (MIA-EVs) As Cell-free Therapeutics For Intervertebral Disc Inflammation

Michelle B. R. G. Ley; H. Thomas Temple; Charles Huang; Gianluca D'Ippolito

Poster No. 899

Durability And Impact Of Annulus Fibrosus Repair With Functionalized Hydrogels Under Loading

Emily E. Sharp; Marcia Muerner; Barbora Kubincova; Junxuan Ma; Emily S. Cook; Sarah E. Gullbrand; Robert L. Mauck; Sibylle Grad

Poster No. 900

Evaluating Implant Design To Reduce Ejection Of Tissue Engineered Whole Disc Replacements

Elyse M. Fleck; Minkyu M. Kim; Nadeen O. Chahine

Poster No. 901

DNA Damage in Intervertebral Disc Degeneration: CRISPR Modulation of ZNF865 (ZNF865)

Jonah G. Holbrook; Christian Lewis; Hunter Levis; Brian Diekman; Robert Bowles

Poster No. 902

Comparative Analysis Of Five Bmps, With Or Without Tgf β -3, In Promoting Proliferation And Chondrogenic Differentiation Of Human Nucleus Pulposus Cells

Britney Force; Xueqin Gao; Zuokui Xiao; Johnny Huard

Poster No. 903

Therapeutic Potential Of TRPC6 Inhibition In Painful Intervertebral Disc Degeneration

Janitri Venkatachala Babu; Addisu Mesfin; Varun Puvanesarajah; Karin Wuertz

Poster No. 904

Effect Of Osmotic Stress Via Trpv4 Activation On Autophagy And Matrix Synthesis In The Rat Intervertebral Disc

Masahiko Furuya; Yoshiki Takeoka; Takashi Yurube; Yutaro Kanda; Naotoshi Kumagai; Kohei Kuroshima; Yoshiaki Hiranaka; Daisuke Nakagawa; Yu Inoue; Takahiro Kitano; Akihiro Miyajima; Ryosuke Kuroda; Kenichiro Kakutani

Poster No. 905

Dispersion Of Intradiscally Injected Particles Is Limited By Size

Austin J. Boie; Art Michalek

Saturday, March 28, 2026

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Room #: Hall A

PS1-072 Spine - Diagnostics

Poster No. 906

Anatomic Variants And Radiographic Predictors Of Lumbosacral Transitional Vertebrae

James Thornton; Jennifer Cheng; Douglas Mintz; Peter Moley

Poster No. 907

The Effect Of GLP-1 Receptor Agonists On Bone Mineral Density In The Lumbar Spine

Carson Cummings; Sarah Meng; Rekha Isaac; Luke Cotton; Daniel Im; David Shin; Asael Isaac; Joel D. Carson; Stephen Cho; Andrew Cabrera; Taylor Bradley; Alex Hodakowski; Nathaniel Wycliffe; Olumide Danisa

Poster No. 908

Vertebral Fracture Assessment (VFA) Misclassifies Crush Type Fractures

Daniel Oravec; Sudhaker D. Rao; Yener N. Yeni

Poster No. 909

Osteophyte Volume Increases With Age And Caudal Vertebral Level In Individuals With Chronic Low Back Pain

Clarissa LeVasseur; Sabreen Megherhi; Richard Wawrose; Michael Spitnale; William Donaldson; Joon Lee; Gina McKernan; William Anderst

Poster No. 910

Does Spect/ct Change Management? Evaluating Its Role In The Post-operative Spine

Walker C. Welch; Alejandro Venable-Croft; Neel N. Patel; Audrey C. Korte; William G. Burks; Caitlyn J. Collins; Jonathan J. Carmouche

Poster No. 911

New Diagnostic Approach To Traumatic Vertebral Body Fractures Using Hounsfield Unit Values.

Takeru Akabane; Tomoto Suzuki; Hiromori Sagae; Yuto Chiba; Michiaki Takagi

Poster No. 912

Correlation Of The Single Assessment Numerical Evaluation To Legacy Patient-reported Outcomes In Lumbar Fusion

Allyson N. Pfeil; Caroline Miller; Joshua Taylor; Andre Samuel; Corey F. Hryc

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PS1-073 Spine - Growth, Development and Aging

Poster No. 913

Evaluating The Impact Of Adult Thoracic Scoliosis On Pulmonary Function And Chronic Disease In Aging Adults

Sonya Singh; Eun Bi Kim; Nancy Hadley-Miller; Kaleb Taylor; Harry Smith; Ahmed Nadeem; Klane White; David Ou-Yang; Punam Saha; Elizabeth Regan; Patrick Carry

Poster No. 914

Mutations In KIF7 Auto-inhibitory Region Is Associated With Upregulation Of Inflammatory Markers In AIS Associated Variants

Melissa Cuevas; Qianbin He; Elizabeth Terhune; Siera Rossi; Cambria Wethey; Anna Monley; Nancy Hadley-Miller

Poster No. 915

Asymmetric Vertebral Growth Contributes To Junctional Kyphosis In The Skeletally Immature Swine Model

Cameron K. Jeffers; Matthew A. Halanski; Brittney Kokinos; Tom Crenshaw

Poster No. 916

Patterns And Risk Factors For Vertebral Compression Fractures In Children And Adolescents: A 20-year National Emergency Department Study

Yoli Meydan; Ahnaf Zaman; Jeffrey Zhang; Heena Jalili; Bryan Chen; Phoebe Lawrence; James Barsi

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PS1-074 Spine - Injury, Healing and Pain

Poster No. 917

The Effect Of E-cigarette Vapor Extracts On Spine Fusion Capacity In A Rodent Arthrodesis Model

Iyad S. Ali; Tony Y. Lee; Giancarlo Riccobono; Cole Christenson; Samuel Liu; Eddie D. Zhou; Elianna Fred; James S. MacLeod; Yianni Bakaes; Frances Akwuole; Avani Chopra; Jinyuan Li; Stuart R. Stock; Erin Hsu; Romie Gibly

Poster No. 918

Functional Analysis Of Fibroblasts Involved In Fibrotic Scar Formation In Spinal Cord Injury

Yasuhiro Nagatani; Nakashima Hiroaki; Yukihiro Shiraki; Imagama Shiro; Enomoto Atsushi

Poster No. 918A

Impact Of Psychiatric History On Outcomes Following Surgical Management Of Traumatic Thoracolumbar Fractures: A Retrospective Cohort Study

Daniel S. Flynn; Daria Bakhtiari; Timothy Matthews; Samuel W. Rice; Antonio Lobao; Ryan Schiedo; Michael Stauff

Poster No. 919

Evaluation Of Manual And Deep Learning Techniques For Segmenting Sonograms Of The Thoracolumbar Fascia

Georgina B. Flynn-Smith; Alicia Roldan; Julianne Wood; Bradley Hilger; Aiguo Han; Albert Kozar; Vincent Wang

Poster No. 920

Neonatal Sevs Delivering Mir-487b-3p Break A Metabolic-immune Vicious Cycle To Promote Scarless Spinal Cord Repair

Hongbin Lu

Poster No. 921

Fusion Rate Effects Of Electron Beam Sterilization On Novel Peptide Amphiphile-based Spinal Implant

Eddie D. Zhou; Tony Lee; Samuel L. Liu; Giancarlo Riccobono; Iyad S. Ali; Cole E. Christenson; Avani Chopra; James S. MacLeod; Frances Akwuole; Yianni Bakaes; Jinyuan Li; Hussain Sangji; Charlotte Chen; Nicholas Sather; Samuel Stupp; Wellington Hsu; Stuart R. Stock; Romie F. Gibly; Erin L. Hsu

Poster No. 922

MRI Of Intervertebral Disc And Ultrasound Imaging Of Multifidi In Participants With Nonspecific Low Back Pain

Mackenzie N. Conner; Harrah R. Newman; Ankit K. Shahi; Jaclyn Sions; Dawn M. Elliott

Poster No. 923

Women On Oral Contraceptives Have Decreased Odds Of Lumbar Disc Displacement

Rachel X. Shi; Anish Raju; Jonathan N. Grauer

Poster No. 924

Incidence And Risk Factors Of Perioperative Inpatient Falls Following Multi-level Posterior Spinal Fusion For Adult Idiopathic Scoliosis

Anish Raju; Anthony Seddio; Om Jahagirdar; Siddharta Lavu; Gwyneth Maloy; Wesley Day; Daniel R. Rubio; Jonathan N. Grauer

Poster No. 925

Spinopelvic Parameters As Predictors Of Sagittal Correction Loss In Thoracolumbar Fractures

Marcel Betsch; Clara Preußker; Simon Schramm; Johannes Groh; Johannes Krause; Mario Perl; Stefan Tiefenboeck

Poster No. 926

Inhibiting Shp2-mediated Microglial Subtype Transition Alleviates Secondary Inflammation Following Spinal Cord Injury

Siyue Tao; Xintian Ding; Zhiyang Kang; Zhixuan Kang

Poster No. 927

Floating Lateral Mass Systematic Review

Kevin Yoon; Ayano Amanuel; Gonzalo Del Rio Montesinos; Jonathan Japa; Mark Ehioghae; Addisu Mesfin

Poster No. 928

From Pain To Relief: A Thematic Analysis Of Patients' Experiences Of Spinal Surgery

Giorgia Petrucci; Gianluca Vadalà; Fabrizio Russo; Luca Ambrosio; Girolamo Maltese; Rocco Papalia; Vincenzo Denaro

Poster No. 929

Is Chronic Low Back Pain Related To Sleep Disturbances? A Self-organizing Maps For Unsupervised Machine Learning-based Patient Phenotyping

Giorgia Petrucci; Fabrizio Russo; Simone Russo; Gianluca Vadala; Rocco Papalia; Vincenzo Denaro

Poster No. 930

Prevalence And Risk Factors For Cervical Pain In Medical Students

Noah M. Gonzalez; Jason P. Den Haese Jr; Kagan Smith; Tyler Dobratz; Summer E. Den Haese

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PS1-075 Spine - Structure, Function and Mechanics

Poster No. 931

Quantifying 3D Spinal Deformity Corrective Moment And Spine Stiffness In Children With Spinal Muscle Atrophy

Dennis E. Anderson; Lennert Plasschaert; Hiroko Matsumoto; Ryan Murdock; Brian Snyder

Poster No. 932

Altered Cervical Intervertebral Motion In Chronic Neck Pain: Evidence From Biplane Videoradiography

Craig Kage; Rebecca Abbott; Matthew MacEwen; Bryan Ladd; Jason Haselhuhn; Jonathan Sembrano; Nathaniel Helwig; Arin Ellingson

Poster No. 933

Generalized Joint Hypermobility And Neck Pain: Community-based Prevalence And Functional Correlates In Females

Rebecca Abbott; Andrew Leroux; Carly Molenaar; Kyle Dalske; Arin Ellingson

Poster No. 934

Multidimensional Mechanical Changes Of The Human Cervical Spine

Emma C. Coltoff; Paul A. Marcet; Jonathan L. Wilson; Philip J. Brown

Poster No. 935

Graft Bolt Outperforms Center Screw Fixation In Single-level Anterior Lumbar Interbody Fusion: A Biomechanical Study

Christopher M. Mikhail; Dave T. Huang; Alexander Turner; Nora A. Galoustian; Hirofumi Kusomoto; David Skaggs; Melodie Metzger

Poster No. 936

Flex Ventilation Improves Pulmonary Function In A Rib-tethered Mini-pig Model Of Thoracic Insufficiency Syndrome

Carly Ciociola; Jerrienne Brandly; Klaus Hopster; Madeline Boyes; Agathe Guillemet; Oscar H. Mayer; Alexander I. Gipsman; Brian Snyder; Thomas Schaer; Patrick Cahill

Poster No. 937

Biomechanical Analysis Of Lumbar Spine Constructs: A Ct-based In Silico Model To Evaluate Motion In Lateral Lumbar Interbody Fusion Under Multiaxial Loading Conditions

Farid Amirouche; Ali Rteil; Rajavel Harish; James Mok

Poster No. 938

Insertional Torque And Pullout Strength: A Comparison Of Robot-assisted And Manual Pedicle Screw Placement

Hui Zhang; Justin L. Reyes; William K Crockatt; Alexander Dash; Alexandra C. Dionne; Roy Miller; Oluwademilade O. Tega; Silvio T. Betancur; Stephan T. Blaskovics; Thomas R. Gardner; Zeeshan M. Sardar; Lawrence G. Lenke; Joseph M. Lombardi

Poster No. 939

Quantitative Instrumentation For Cone Of Economy Analysis:integrating Radiographic Imaging With Clinical Assessment

Hsuan Yu Chen; Ming-Chang Hsu; Ting-Jen Yeh

Poster No. 940

Spinopelvic Fixation Surgery In Relation To The Femoroacetabular Impingement Syndrome Under The Ultrasonography

Takahiro Kozaki; Takuhei Kozaki; Yuyu Ishimoto; Hiroshi Iwasaki; Hiroshi Hashizume; Shunji Tsutsui; Masanari Takami; Keiji Nagata; Masatoshi Teraguchi; Daisuke Nishiyama; Daisuke Fukui; Manabu Yamanaka; Tsuyoshi Deguchi; Ryuichiro Nakanishi; Miyake Ryo; Yuta Yamamoto; Hiroshi Yamada

Poster No. 941

Modified Lsdi

Bungo Otsuki; Masaki Sakamoto; Mitsuru Takemoto; Kim Youngwoo; Hiroyuki Tokuyasu; Itaya Takahiro; Yosuke Yamamoto; Tomoki Aoyama; Ryosuke Ikeguchi; Kohei Nishitani; Koichi Murata; Takayoshi Shimizu; Takashi Sono; Shuichi Matsuda

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PS1-076

Spine - Surgical and Non-Surgical Interventions

Poster No. 942

Outcomes Following Lumbar Interbody Fusion With A Novel Cellular Bone Allograft: A Matched-Cohort Analysis

Charles P. Nolte; Arjun Singh; Aaron Ishmael; Caleb Wipf; Jingdian Huang; Andriy Noshchenko; Vikas Patel

Poster No. 943

Cervical Disc Arthroplasty In Congenital Cervical Spinal Stenosis: Outcomes Compared To Non-stenotic Patients

Hannah Shelby; Ram Alluri; Joseph Shelby; Todd Albert

Poster No. 944

Epidemiology And Clinical Outcomes Of Traumatic Spinal Injuries In Saudi Arabia: A Retrospective Analysis Following The 2018 Driving Policy Reform

Khalid F. Alrasheed; Nizar A. Algarni; Rushaid N. Aljurayyan

Poster No. 945

Dental History As A Predictor Of Reoperation And Healthcare Costs After Anterior Cervical Discectomy And Fusion

Julian Smith-Voudouris; Albert Lee; Katie Zehner; Joshua Sanchez; Sahir S. Jabbouri; Scott J. Halperin; Jonathan N. Grauer

Poster No. 946

Nonoperative Therapy Of Sacral Chordomas: A Case Series And Systematic Review Of The Literature

Sean Bae; Mark Ehioghae; Ala Alshomali; Aaron Phung; Linus Lee; Justin Hyde; Jamie Lee; Jonathan Japa; Kevin Yoon; Addisu Mesfin

Poster No. 947

Electromagnetic Vs. Traction-based Head Positioning For Cervical Alignment

Arin Ellingson; Ashley Abbott; Jacqueline Wright; Jason Haselhuhn; Kari Odland; Jonathan Sembrano

Poster No. 948

Reinsertion Mechanics Of Sacroiliac Fusion Screws: Effects Of Bone Density, Tapping, And Size

Cale Hendricks; David Polly Jr; Ashley Abbott; Yaqoub Yufus; Rafael Garcia; Matthew MacEwen; Arin Ellingson

Poster No. 949

Rod Diameter, Material, And Texture Influence Screw-rod Fixation Strength In Spinopelvic Constructs

Cale Hendricks; Sam Hendricks; Alec Thingvold; David Polly Jr; Arin Ellingson

Poster No. 950

Allogeneic Platelet And Plasma-derived Therapeutic C-1101 To Treat Chronic Lumbosacral Radiculopathy

Lynn Pezzanite; Teresa Wright; Steven Dow; Lyndah Chow; Jacob Singer; Peter Linde; Jennifer Newman; Vishwesh Patil; Jennifer Schmitke

Poster No. 951

Single-level Anterior Cervical Discectomy And Fusion Is Associated With Higher Non-routine Discharge Rates Compared To Cervical Disc Arthroplasty In Obese Patients

Luke B. Schwartz; Paul G. Mastrokostas; Eli Berglas; Aaron Lavi; Leonidas Mastrokostas; Jad Bou Monsef; Afshin E. Razi; Mitchell Ng

Poster No. 952

Radiographic And Clinical Outcomes After Vertebral Body Tethering In Scoliosis Patients

Mary Francis Garcia; Kelsey Hideshima; Mandeep Chhokar; Rolando Roberto

Poster No. 953

Complications After Anterior Lumbar Interbody Fusion In Patients With Prior Abdominal Surgery

Hannah Shelby; Sarah Bergren; Aidan Lindgren; Daniel Rusu; Ram Alluri

Poster No. 954

Surgical Approach And Clinical Predictors Of Infection Recurrence After Instrumented Spine Surgery

Molly A. Szpakowski; Phillip Alexeev; Pitcherita Anthenor; Ryan Snowden; Damon Abaray

Poster No. 954A

Effects Of A1c Levels On Postoperative Complications Following Elective Lumbar Microdiscectomy

Levi Travis; Anish Thalakola; Aneesh Samineni; William A. Marmor; James Parrish; Nathan Lebwohl; Emmanuel Menga

Poster No. 955

Cost-utility Analysis Of A Preoperative Diabetes Optimization Program In Posterior Spinal Fusion Surgery

Guillermo A. Martinez; Elyette M. Lugo; Rachel S. Bronheim; Amit Jain

Poster No. 955A

Chronic Corticosteroid Use Is Associated With Increased Postoperative Complications Following Lumbar Microdiscectomy

Levi M. Travis; Solomon G. Jackson; Aneesh V. Samineni; William A. Marmor; Danny Lee; Anil Sedani; Emmanuel N. Menga

Poster No. 956

Providence Bracing In Adolescent Idiopathic Scoliosis: A Scoping Review

Jacob D. Kodra; Harshavardhan Bollepalli; Carter J.K. White; John G. Thometz; Xue-Cheng Liu

Poster No. 957

The Forgotten Spine Score - Towards The Validation Of A Patient-centered Outcome Measure Following Lumbar Spine Fusion

Luca Ambrosio; Jordy Schol; de Rinaldis Elisabetta; Giorgia Petrucci; Yuto Otani; Shota Tamagawa; Fabrizio Russo; Daisuke Sakai; Rocco Papalia; Gianluca Vadala; Vincenzo Denaro

Poster No. 958

Changing Patterns In Surgical Management Of Opll In The United States: Comorbidities, Complications, And Cost

Hesham Tanbour; Sean Taylor; Zuhair Mohammad; Saurabh Rawall; Gerald McGwin; Sakthivel Manoharan

Poster No. 959

A Clinical Comparison Of Robotic-assisted And Navigated Screw Placement Accuracy To Planned Screw Trajectory

Annie Reza; Ahmad Faizan; Sarah Shi; Matthias Wapler

Poster No. 960

The Impact Of Hyperlipidemia On Postoperative Outcomes And Healthcare Utilization Following Lumbar Fusion

Carson Cummings; Sarah Meng; Luke Cotton; Adelin Tulcan; David Cheng; Joel D. Carson; Vahe Yacoubian; Gideon Harianja; Melissa Erickson; Muhammad Abd El Barr; Olumide Danisa

Poster No. 961

Anterior Interbody Approaches Are Associated With Lower Rates Of Reoperation Than Posterior Interbody Approaches In The Setting Of Long Posterior Fusion To The Pelvis For Adult Spinal Deformity

Arjun Aron; Albert H. Lee; Julian Smith-Voudouris; Siddhartha Lavu; Jonathan N. Grauer; Daniel R. Rubio

Poster No. 962

Radiation Therapy Does Not Significantly Increase The Risk Of Postoperative Complications In Cancer Patients Undergoing Posterior Spinal Arthrodesis

Jacob D. Kodra

Poster No. 963

Assessing Risk Factors For Providence Bracing Failure In Adolescent Idiopathic Scoliosis

Jacob D. Kodra; Xue-Cheng Liu; John G. Thometz

Poster No. 964

Impact Of Functional Neurological Disorder On Postoperative Outcomes After ACDF: A Propensity-matched Analysis

Christopher Kaszluga; Samuel Florentino; Vu Bui; Logan Good; Alexander Berk; Johnathan Belding

Poster No. 965

Determinants Of Spinal Bracing Success In Mitigating Spine Deformity Progression In Spinal Muscular Atrophy (SMA)

Hiroko Matsumoto; Yuri Ota; Joyce Huang; Timothy Hresko; Ron El-Hawary; Grant Hogue; Craig Birch; John Emans; Dennis Anderson; Ryan Murdock; Brian Snyder

Poster No. 966

Evaluating The Use Of Mixed Reality Surgical Navigation In Screw Removal: A Preliminary Study

Claire Eiden

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PS1-077 Cartilage - Diseases and Disorders

Poster No. 967

Microplastics Induce Osteoarthritis By Modulating Chondrocyte Inflammation And Disrupting Tgf- β Signaling In Mesenchymal Stem Cells

Qian Zhang; Hongjie Huang; Kainong Sun

Poster No. 968

Impact Of Synovial Cell Subpopulations On Tenascin-C Expression And Assessment Of M1,M2 Macrophage Polarization In Co-Culture

Gai Kobayashi; Yohei Naito; Hizuki Maeda; Keisuke Takada; Shintaro Ichikawa; Shine Tone; Masahiro Hasegawa

Poster No. 969

Senescent Macrophages Induce Chondrocyte Catabolism And Accelerate Cartilage Degeneration In Osteoarthritis

Masaya Nakajo; Alaa M Terkawi; Yuki Fujie; Yuki Ogawa; Ryota Suzuki; Taiki Tokuhiko; Taku Ebata; Endo Tsutomu; Daisuke Takahashi; Norimasa Iwasaki

Poster No. 970

FT-IR Spectroscopy As A Tool In Orthopedics To Study Cells And Tissue Diseases

Gabriela Graziani; Francesco Pegreff; Giovanni D'Atri; Elena Gabusi; Laura Saldana; Eduardo García-Rey; Gina Lisignoli

Poster No. 971

Comparative Effects Of Different Immobilization Conditions On Cartilage Biomarkers

Anja Niehoff; Maren Dreiner; Miriam Weyers; Ines Ebner; Elie-Tino Godonou; Mathilde Lepileur; Yvonne Sponer; Koray Tascilar; Georg Schett; Anna-Maria Liphardt

Poster No. 972

Targeting CD38-mediated NAD Metabolism In Synovial Fibroblasts To Modulate Gouty Arthritis

Carli DeJulius; Luke Stasikelis; Hugh W. Ferry; Md M. Fuad; Michael Newton; Elsie Rattner; Daniel McDougle; James Moon; John Varga; Tristan Maerz

Poster No. 972A

Synovial Fluid Extracellular Vesicle Mirna Profiling In Knee Osteoarthritis

Cole Conforti; D. Wood Kimbrough; Neep Patel; Jean Jose; Tom Best; Dimitrios Kouroupis

Poster No. 973

Comparison Of Cam-type FAI Versus End-stage Hip OA Synovial Fluid Biomarker Levels Using A Multiplex Platform: A Pilot Study

Julia P. Hochstatter; Arnavaz Hakimiyan; Jeffrey A. Borgia; Zeeshan Khan; David Kachar; Shane J. Nho; Craig P. Della Valle; Jorge Chahla; Catherine Yuh

Poster No. 974

Treatment With Parathyroid Hormone Following Daily Loading Does Not Attenuate Osteoarthritis Progression

Omar Dervisevic; Ana Witkowski; Marjolein Christine Hermance van der Meulen

Poster No. 975

Exosomal Mir-125b-5p Derived From Adipose-derived Mesenchymal Stem Cells Alleviates Cell Senescence By Suppressing Cdkn2a(p16^{Ink4a}) In Human Articular Chondrocytes

Linghua Chang

Poster No. 976

Tau Is Required For Glucocorticoid-induced Chondrocyte Apoptosis And Osteoarthritis Progression

Guiwu Huang; Chaopeng He; Wenyu Fu; Chuan-ju Liu

Poster No. 977

Validation Of A Novel Organoid Model Of Osteoarthritis For High-throughput Drug Screening

Max L. Lee; Glen Liau; Mayu Morita; Yasemin S. Ergul; Chao Ma; Kuan-Lin Chen; Simon K. Chow; Hang Lin; Bruce A. Bunnell; Qi Gao; Stuart B. Goodman

Poster No. 978

Patient-derived Ipscs Reveals That Genotype Is A Key Factor To Determine Cellular Phenotype And Drug Sensitivity In Type Ii Collagenopathy.

Junya Toguchida; Hiromitsu Fuse; Takaki Nakashima; Akira Ohta; Nishio Megumi; Sanae Nagata; Shunsuke Kawai

Poster No. 979

Cross-species Comparison Of Naturally Occurring Osteoarthritis In Equine And Human Cartilage

Maria Bikuna Izagirre; Colleen Mathieu; Morgan Yeh; Amelia Duguay; Renato Castillo; Sotcheadt Sim; Eric Quenneville; Martin Garon

Poster No. 980

Spatial Transcriptomics And Canonical Correlation Analysis Reveal Cellular Niches In Human Ankle Synovium

Michael A. David; Nanxi Guo; Julia Matthias; Lluvia Mejia Tovar; Kenneth J. Hunt; Fan Zhang

Poster No. 981

Mast Cells Influence Sex-specific Responses To Joint Injury In A Murine Post-traumatic Osteoarthritis Model

Abigail R. Loucks; Tristan Maerz; Aimee Colbath

Poster No. 982

Integrated Metabolomic And Transcriptomic Analysis Identifies Joint Acidosis As A Defining Feature Of Osteoarthritis

Nazir M. Khan; William N. Martin; Colette Hyde; Adam Yung; Samir Chihab; Ryan Taffe; Bhakti Patel; Ajay Premkumar; Hicham Drissi

Poster No. 983

A Multimodal Toolbox For Mapping And Profiling Murine Joint Innervation

Nele Haelterman; Russell Ray; Joshua Wythe; Rui Chen; Ben Arenkiel; Yangjin Bae; Kim Worley; kNERVE Team RE-JOIN; Brendan Lee

Poster No. 984

Non-neuronal Ngf-trka Signaling Contributes To Joint Pain And Inflammation In Experimental Osteoarthritis

Lai Wang

Poster No. 985

Senescent Sells Emerge In Articular Cartilage, Subchondral Bone, Synovium, And The Greater Tuberosity In A Rat Modified Cuff Tear Arthropathy Model

Kento Shimano

Poster No. 986

Joint Damage More Severe In Male Mice Than Female Mice Following Cyclic Tibial Compression

Sophia Ziemian; Emma Weiss; Muyin Huang; Marjolein Christine Hermance van der Meulen

Poster No. 987

Human Ipsc-based Microphysiological System For Studying Adipose-cartilage Crosstalk In Obesity-associated Osteoarthritis

Meagan Makarczyk; Olivia Bartholomew; Ruiling Xu; Sophie Hines; Jiangyinzi Shang; Hang Lin

Poster No. 988

Macrophage-specific Deletion Of Ca²⁺/calmodulin-dependent Protein Kinase Kinase 2 Attenuates Post-traumatic Osteoarthritis Pathogenesis

Brett T. Mattingly; Xinchun Ding; Charlie Wright; Uma Sankar

Poster No. 989

The Effect Of A Ketogenic Diet On Injury-induced Osteoarthritis Progression

Nole Robertson; Nikola Jaworska; Molly R. Gallop; Baifeng Yu; Peyton Mower; Nurlatifa Zahra Mohd Fuad; Renan Vieira; Isabella Goh; Jie Zhang; Amandine Chaix; Natalia Harasymowicz

Poster No. 990

Differentiation And Functional Characterization Of Human Ipsc-derived Fibroblast-like Synoviocytes

Xinying Lu; Victor Zhang; Isabelle Linares; Myla Nover-Estes; Hani Awad

Poster No. 991

Piezo1 Regulates Synovial Inflammation And Offers A Therapeutic Target In Arthritis

Donghao Gan; Francis Lee; Guozhi Xiao

Poster No. 992

Transferrin-1 Receptor (TfR1) As A Potential Therapeutic Target In Synovitis

Tsunemasa Kita; Yudai Morita; Nami Yamaguchi; Takuya Tajima; Naosuke Kamei

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-078 Cartilage and Synovium - Growth, Development and Aging

Poster No. 993

Analysis Of Central Metabolites For Articular Chondrocytes In Response To Normoxia And Hypoxia

Priyanka Brahmachary; Avery Welfley; Ronald June

Poster No. 994

Hypoxic Culture Of Chondrocytes Induces Production Of Type Collagen VI In The Pericellular Matrix

Samuel S. Battles; Priyanka Brahmachary; Ronald K. June

Poster No. 995

Sirt6 Activation By Mdl-800 Reduces DNA Damage In Synovial Fibroblasts

William R. Davis; Jacqueline Shine; Brian O. Diekman

Poster No. 996

Human BMP4 mRNA Encapsulated In Lipid Nanoparticle Improved Age-related Osteoarthritis After Intra-articular Injection

Xueqin Gao; Zuokui Xiao; Keisuke Nakayama; Matthieu Huard; Shintaro Mukohara; Aryn Cummins; Britney Force; Linda H. Li; Chiara Mancino; John P. Cooke; Francesca Taraballi; Marc Philippon; Johnny Huard

Poster No. 997

Hypermetabolic But Non-proliferative Chondrocytes In Late-stage Osteoarthritis

Ying Peng; Annie Porter; Dylan McQuiston; Michael Axe; X. Lucas Lu

Poster No. 998

Tibial Plateau Cartilage Thickness During Skeletal Growth In Porcine Knees

Sahil Dadoo; Luke T. Mattar; Tianyu Chen; Matthew B. Fisher; Volker Musahl; Richard E. Debski

Poster No. 999

KLF15 Deficiency Accelerated Osteoarthritis Via Upregulation Of ATP6v0d2 In Mice

Kohei Motono; Shinya Hayashi; Tomoyuki Matsumoto; Naoki Nakano; Yuichi Kuroda; Masanori Tsubosaka; Tomoyuki Kamenaga; Kensuke Wada; Akira Saito; Takuma Maeda; Shotaro Araki; Toshiki Kitamura; Takuma Hayashi; Ryosuke Kuroda

Poster No. 1000

Repetitive Pure Shear Loading Leads To Permanent Fetal Articular Cartilage Mechanical Changes Due To Collagen Fiber Densification And Fiber Alignment

Kangxin Wang; Jill Middelndorf

Poster No. 1001

Consistent Self-organized Emergence Of Hyaline Cartilage In Hipsc-derived Multi-tissue Organoids

Huzefa Husain; Manci Li; Juan E. Abrahante; Natalia C. Mancipe; Amanda Vegoe; Yi Wen Chai; Beth Lindborg; Marc Tompkins; Brenda Ogle; Peter Larsen; Timothy D. O'Brien; Ferenc Toth

Poster No. 1002

Runx1 Is Required For Oleanolic Acid Induced Mesenchymal Stem Cell Chondrogenesis

Qinqin Xu; Patrick Massey; Shane Barton; Yufeng Dong

Poster No. 1003

Role Of G-protein-coupled Estrogen Receptor-1 (gper-1) In Enhancing Chondrocyte Proliferation Through Pthrp/ihh Signaling During Pubertal Bone Growth In Male And Female Mice

Ya-Shuan Chou; Sung-Yen Lin; Shu-Chun Chuang; Pei-Yin Shih; Chung-Hwan Chen; Mei-Ling Ho; Je-Ken Chang

Poster No. 1004

Hes1 Disrupts The Transcriptome And Osteoclast Maturation In Male Mice Contributing To The Sexual Dimorphism In Bone Remodeling

Ernesto Canalis

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-079 Cartilage and Synovium - Injury and Healing

Poster No. 1005

Red Blood Cell Interaction With Hyaluronan Is Modulated By Molecular Weight In A Hemarthrosis Model

Neo E. Nyoni; Courtney Wright; Gerard Ateshian; Roshan Shah; Clark T. Hung

Poster No. 1006

Investigating The Roles Of Microrna-21 And Microrna-29 In Fibrosis

Kait E. Hosmer; Christine Van Duyn; D. Joshua Cohen; Zvi Schwartz; Barbara Boyan

Poster No. 1007

Continuous Low-intensity Ultrasound Reprograms Fibronectin Fragment-activated Macrophages Toward A Reparative Phenotype: Implications For Early Post-Traumatic Osteoarthritis

Shahid Khan; Owen Trippany; Anuradha Subramanian; Satyaki Roy

Poster No. 1008

Rabbit Tissue-specific Stem Cell Engineering For Controllable Cartilage Regeneration

Qingqing Yu; Zhixin Wei; Ming Pei

Poster No. 1009

A New Method To Engineer Stem Cells To Automatically Convert Fibrocartilage Into Articular Cartilage

Zhixin Wei; Qingqing Yu; Asif Shahriar; Ming Pei

Poster No. 1010

Effect Of Heparan Sulfate In Perlecan On Stem Cell-based Chondrogenesis Via Decm Expansion

Zhixin Wei; Qingqing Yu; Asif Shahriar; Ming Pei

Poster No. 1011

Mouse Knee Spatial Transcriptomics Reveals Injury Programs Associated With The Infrapatellar Fat Pad In Aging

David Carro Vazquez; Tiffany G. Lam; Tiffany T. K. Pham; Hope D. Welhaven; Tamara Alliston; Allon Wagner; Kelsey H. Collins

Poster No. 1012

Osteochondral Repair In The "Red Knee": Impact Of Preexisting Meniscus Damage On Graft Function

Brendan Stoeckl; Rachel Flaugh; Akbar Syed; Elizabeth Bernstein; Emily Cook; Austin Jenk; Lorie Laforest; Kendall Masada; Carla Scanzello; Liane Miller; Robert Mauck; David Steinberg

Poster No. 1013

Continuous Low-intensity Ultrasound Mitigates Inflammation And Induces Reparative Responses In In-vitro Model Of Early Post-Traumatic Osteoarthritis

Shahid Khan; Anuradha Subramanian

Poster No. 1014

Enhanced Pain Reduction And Hyaline Cartilage Regeneration Using Micronized Human Bone Marrow Stroma/parenchyma Compared To BMAC In A Nude Rat PTOA Model

Edward Donner

Poster No. 1015

Advanced Cryopreservation Of Viable Large Cartilage Tissues

Haiyang Ma; Josh Wewerka; Ge Pan; Minar Mahmud; AJ Riffe; Dustin Mueller; Peng Chen; Yaqian Sun; John M. Alford; Kristi Helke; Girish Srinivas; Hai Yao; David P. Eisenberg; Shangping Wang

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-080 Cartilage and Synovium - Mechanobiology

Poster No. 1016

Investigating Mechanotransduction In Mouse Joints Using Targeted Analysis Of Central Metabolites

Molly E. Piazza; Priyanka Brahmachary; Ron June

Poster No. 1017

Injurious Loading Alters PEP And NADH: A Metabolic Analysis Of Articular Chondrocytes

Aidan Gregory; Priyanka Brahmachary; Liam Rockwell; Erik Myers; Ronald June

Poster No. 1018

Calibration Of A Spim System For Studying Chondrocyte Mechanotransduction

Grant B. Whitacre; Priyanka P. Brahmachary; Ronald K. June; Jeffrey Kinkaid

Poster No. 1019

Body Composition-driven Changes In Infrapatellar Fat Pad Architecture: Implementing Bioimpedance-guided Risk Assessment In Total Knee Arthroplasty

Jacob Fisher; Mitchell Coleman; Victoria C. Tappa; Silvana Mohr; Yumeng Gao; Jacob M. Elkins

Poster No. 1020

Cartilage Collagen Loss Is Initially Driven By Injury-related MMP Activity And Later Dominated By Inflammation-related MMP Activity In Early Post-traumatic Osteoarthritis: Experiments And Computational Model

Moustafa Hamada; Atte S.A Eskelinen; Sanna Hakonen; Joonas P. Kosonen; Cristina Florea; Alan Grodzinsky; Rami K. Korhonen; Petri Tanska

Poster No. 1021

Loss Of Type V Collagen Disrupts Mechanosensitive Signaling Of TMJ Condylar Cartilage Progenitors

Abdulaziz Alanazi; Prashant Chandrasekaran; Bryan Kwok; Sara Tufa; Douglas Keene; David Birk; Tristan Maerz; Robert Mauck; Nathaniel Dymont; Eiki Koyama; Lin Han

Poster No. 1022

Chondrocyte Expansion Results In Dedifferentiation Through Alterations In Contractility And Nuclear Engagement

Harrison Craythorne; Tristan Driscoll

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-081 Cartilage and Synovium - Structure, Function and Mechanics

Poster No. 1023

A Vascularized Tissue-engineered Model Of The Synovium For The In Vitro Study Of Osteoarthritis

Matthew J. Pellicore; Derek Ning; Neo E. Nyoni; Leyla E. Selman; Gerard A. Ateshian; Clark T. Hung

Poster No. 1024

Raman Microscopy With Phantom Calibration For Quantitative Imaging Of Cartilage Biochemical Composition

Henry E. Brisebois; Erik E. Erslund; Kevin T. Uning; Dev R. Mehrotra; Mark W. Grinstaff; Michael R. Thomas; Brian D. Snyder; Mads S. Bergholt; Michael B. Albro

Poster No. 1025

An Integrated Multiscale Framework To Bridge Structure Function Pain In Musculoskeletal Joints

Peng Chen; Jiixin Chai; Shuchun Sun; Jian Chen; Jichao Zhao; Eric Granquist; Beth Winkelstein; Mildred Embree; Man-Kyo Chung; Janice Lee; Hai Yao

Poster No. 1026

Relationship Between OA Cartilage Shear Mechanics And Composition Is Dictated At The Articular Surface

Salman O. Matan; Camila Carballo; Sabrina Strickland; Andreas Gomoll; Scott Rodeo; Itai Cohen; Lawrence Bonassar

Poster No. 1027

Multiscale Computational Modeling Of Nociceptive Responses To Biomechanical Loading In TMJ Disc Displacement

Jian Chen; Jiixin Chai; Shuchun Sun; Farhad Ahmadi; Jichao Zhao; Brooke Damon; Yongren Wu; Benedikt Sagl; Janice Lee; Peng Chen; Hai Yao

Poster No. 1028

Vancomycin Diffusion Into Articular Cartilage And Its Impact On Compressive Mechanics

Serafina Lopez; Natalia D. McIver; Leilani Baker; Chioma Onyeugo; Devin Maez; Dustin Richter; Christina Salas

Poster No. 1029

Full-field Strain Characterization Of Patellar Cartilage Following Osteochondral Allograft Transplant Using MRI Methods

Michael A. Hernandez Lamberty; Ulrich Scheven; John Grant; Rhima Coleman; Ellen Arruda

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-082 Cartilage and Synovium - Treatment and Therapeutics

Poster No. 1030

Cartilage Autophagy Dysregulation During Oa Progression In Hip Femoroacetabular Impingement

Yoshihito Suda; Kenichi Kikuchi; Chengchong Ai; Jie Shen; Robert H. Brophy; Regis J. O'Keefe; John C. Clohisy; Cecilia Pascual-Garrido

Poster No. 1031

Cartilage-targeting Mrna-loaded Exosomes For Osteoarthritis Gene Therapy

Helna Mary Baby; Tanvi V. Pathrikar; Andrew Selvadoss; Timothy Boyer; Bill Hakim; Alia M. Obeidat; Anne-Marie Malfait; Uma Sankar; Rachel Miller; Ambika Bajpayee

Poster No. 1032

Cryopreservation Increases Cellular Senescence In Human Bone Marrow Aspirate Concentrate (BMAC).

Noah Knezic; Xueqin Gao; Ping Guo; Aiping Lu; Johnny Huard

Poster No. 1033

Prediction Of Intra-articular Drug Clearance Through Synovium From Slow-release Carriers Using A Two Compartment Finite Element Model

Shamimur Akanda; Era Jain; Paolo Decuzzi; Lara Longobardi; Lori Setton

Poster No. 1034

Human Genetics To Drugs: Using Familial Osteoarthritis To Identify Novel Pathways For Drug Discovery And Validation

Mick Juryne; Shivakumar Veereabhadraiah

Poster No. 1035

The Influence Of Passive Joint Mobilization On Knee Osteoarthritis Symptoms: A Preclinical Model

Gregory Roytman; Chaopeng He; Guiwu Huang; Daniel H. Wiznia; Steven M. Tommasini; Chuan-ju Liu

Poster No. 1036

Optimization Of Super-lubricious Copolymer To Improve Microgel Lubricity For The Treatment Of Knee Osteoarthritis

Hannah P. Johnson; Samuel Stealey; Maitreyi Bhagat; Tarini Karnati; Nathan Ly; Paul Jelliss; Silviya P. Zusiak

Poster No. 1037

Modeling Solute Transport And Clearance In Synovial Joints: Implications For The Next Generation Of Injectable Therapeutics

Aiyana G. Fortin; Zongyin Dong; Ulrich B. Wiesner; Lawrence J. Bonassar

Poster No. 1038

Optimization Of Lipid Extraction Methods For Detection Of Tryptophan Metabolites In Synovial Fluid

Emelia Keim; Ashleigh Abbott; Priyanka Brahmachary; Kyle Allen; Ronald June

Poster No. 1039

Lubricin Mimetic Polymer Exhibits Efficient And Extended Lubrication

Spencer Witt; Zhexun Sun; Yu Yu; Lawrence Bonassar

Poster No. 1040

Screening Of An FDA-approved Drug Library Reveals Mitogen-activated Protein Kinase Kinase Inhibitors Block Production Of OA Mediators In Activated Human Chondrocytes And Synovial Fibroblasts And Enhance Chondrocyte Proteoglycan Production

Philip Coryell; Kenneth Pearce; Paul Hardy; Susan Chubinsky; Adam Yanke; Christopher Olcott; Richard Loeser

Poster No. 1041

Orthobiologic Containing Alpha-2-macroglobulin Downregulates Pro-inflammatory Gene Expression In Cultured Equine Synovial Fibroblasts

Brenna R. Pugliese; Lauren V. Schnabel; Fabiola K. Ruiz Rosario

Poster No. 1042

Extracellular Vesicles Shield Adeno Associated Virus From Neutralization By Pre-existing Antibody In Human Synovial Fluid While Enhancing Human Osteoarthritic Chondrocyte Transduction

Aysegul Atasoy-Zeybek; Ozgur F. Duzenli; Joseph A. Panos; Rodolfo E. de la Vega; George Aslanidi; Christopher H. Evans

Poster No. 1043

Wharton's Jelly-derived Extracellular Vesicles Promote Chondrocyte Proliferation And Chondrogenesis, And Mitigate Oxidative Stress

Che Wei Wu; Yao-Hui Huang; Pei-Lin Shao; Ling-Hua Chang; Cheng-Chang Lu; Chung-Hwan Chen; Yin-Chih Fu; Mei-Ling Ho; Je-Ken Chang; Shun Cheng Wu

Poster No. 1044

Restoring Knee Function With Arthroscopic Particulated Juvenile Articular Cartilage Allograft Implantation: Two-year Outcomes

Kyle Williams; Evangelia Constantine; Kaitlyn Whitney;Carolynn McCartney; Seth Sherman; Jason Dragoo

Poster No. 1045

Metformin Use Linked To Lower Osteoarthritis Prevalence In U.S. Adults With Type 2 Diabetes

Julie Nguyen; Annie Porter; Zugui Zhang; Michael Axe; Adam Davey; X. Lucas Lu

Poster No. 1046

Potential Effect Of Imeglimin On Mitochondrial Function In Subsynovial Connective Tissue Of Idiopathic Carpal Tunnel Syndrome

Yutaka Ehara; Yutaka Mifune; Atsuyuki Inui; Kohei Yamaura; Issei Shinohara; Masaya Kusunose; Shunsaku Takigami; Daiji Nakabayashi; Sin Osawa; Takanobu Higashi; Ryota Wakamatsu; Ryosuke Kuroda

Poster No. 1047

Withdrawn

Poster No. 1048

Influences Of High-dose Gentamicin Exposure On Human Articular Cartilage

Fnu Jonathan; Tomoaki Fukui; Keisuke Oe; Yohei Kumabe; Kenichi Sawauchi; Ryo Yoshikawa; Kyohei Takase; Yuya Yamamoto; Ryota Nishida; Hyuma Kondo; Genta Fukumoto; Ryosuke Kuroda

Poster No. 1049

Evaluation Of The Effects Of Hif-ph Inhibitors On Chondrocytes

Kentaro Hayashi; Atsuo Inoue; Kei Nakamura; Shuji Nakagawa; Keisuke Sugie; Tomoki Saito; Yuji Arai; Osam Mazda; Kenji Takahashi

Poster No. 1050

Mechanical Loading In Bioreactor Systems Enhances The Anti-inflammatory Mirna Signature Of Msc Extracellular Vesicles

Mahammad Gardashli; Elena Della Bella; Manuel Herzog; Tom Best; Martin Stoddart; Dimitrios Kouroupis

Poster No. 1051

Therapeutic Potential Of Ifn- γ -preconditioned Msc-derived Extracellular Vesicles In Osteoarthritis

Taro Akimori; Hiroto Hanai; Yusuke Yoshioka; Yu Moriguchi; Kazunori Shimomura; Takahiro Ochiya; Norimasa Nakamura

Poster No. 1052

Comparative Cellular And Functional Characterization Of BMAC And SVF For Cartilage Regeneration

Enrico Ragni; Michela Maria Taiana; Simona Landoni; Nicolò Rossi; Riccardo Giorgino; Paola De Luca; Alessandra Colombini; Federico Sinigaglia; Elizaveta Kon; Giuseppe Peretti; Laura Mangiavini; Laura De Girolamo

Poster No. 1053

Characterizing The Long Non-coding Rna Profile Of Endometrial Mesenchymal Stem/stromal Cell-derived Extracellular Vesicles And Their Potential Role In Treating Osteoarthritis

D. Wood Kimbrough; Cole Conforti; Neep Patel; Michelle B. R. G. Ley; Diego Correa; Lee D. Kaplan; Tom Best; Dimitrios Kouroupis

Poster No. 1054

Genicular Artery Embolization As A Treatment Option For Refractory Knee Pain Post Total Knee Arthroplasty

Nishanth Konduru; Samuel Joshua; Anton Hnatov; Hardayal Singh; Siddhartha Rao

Poster No. 1055

Intermittent Hypoxic Stimulation Exerts Chondroprotective Effects On Cultured Chondrocytes And In A Rat Osteoarthritis Model

Keisuke Sugie; Atsuo Inoue; Shuji Nakagawa; Ryota Cha; Kei Nakamura; Kentaro Hayashi; Tomoki Saito; Yuji Arai; Osam Mazda; Kenji Takahashi

Poster No. 1056

Preliminary In Vivo Evaluation Of The Glycolysis Inhibitor 2DG In A Murine Arthritis Model: Potential For Cartilage

Yoshifumi Ohashi; Kenya Terabe; Shiro Imagama; Cheryl Knudson; Warren Knudson; Nobunori Takahashi

Poster No. 1057

Metformin Alters Chondrocyte Matrix Metabolism Across Age And Disease States Of Articular Cartilage

Annie Porter; Julie Nguyen; Ying Peng; Rachel Perry; Naod Asres; Chloe Kappen; Michael Axe; X. Lucas Lu

Poster No. 1058

Adipose-derived Mesenchymal Stem Cells Act On Synovial Cells Via Gap Junction

Shotaro Araki; Akihiko Taguchi; Tomoyuki Matsumoto; Yuka Okinaka; Shinya Hayashi; Masanori Tsubosaka; Tomoyuki Kamenaga; Yuichi Kuroda; Naoki Nakano; Yoshihito Suda; Kensuke Wada; Akira Saito; Takuma Maeda; Kohei Motono; Takuma Hayashi; Toshiki Kitamura; Ryosuke Kuroda

Poster No. 1059

Enhancement Of Chondrogenic Differentiation In Human Mesenchymal Stromal Cells Via Carbon Dot-facilitated Raav-mediated Delivery Of Sox9 And Tgf- β

Jagadeesh Venkatesan; Gertrud Schmitt; Fanfan Li; Henning Madry; Françoise Pons; Luc Lebeau; Magali Cucchiaroni

Poster No. 1060

Blocking Acute Neutrophil Recruitment With Poly Salicylic Acid Particles Mitigates Pain And Inflammation In PTOA

Lindsey Lammlin; Michael LaRue Felder; Adrienne Giannone; Omolola Eniola-Adefeso; Tristan Maerz

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-083 Multi-Organ System Crosstalk

Poster No. 1061

Ageing Blunts Anti-inflammatory Cytokine Responses In Bone, Tendon, And Muscle In The Rotator Cuff

Hana Kalco; Brianne Connizzo

Poster No. 1062

The Ageing Milieu Drives Host Response To Gut Microbiome Alterations And Osteoarthritis In Male And Female Mice

Priscilla M. Tjandra; Ciara L. Cabrera; Anelajda Korcari; Reyna E. Villa; Cameron X. Villarreal; Eva C. Gonzalez Diaz; Chongshan Liu; Deva Chan; Erika L. Cyphert; Christopher J. Hernandez; Kelsey H. Collins

Poster No. 1063

Decoding Post-menopausal Osteoarthritis Via Multi-omics Networks At Single-cell Resolution

Swarali M. Paranjape; Fabrisia Ambrosio; Hirotaka Iijima

Poster No. 1064

Adipocyte-mediated Oa Inflammation In A Joint-on-chip Model

Mehmet Sertac Cekuc; Yasemin Ergul; Patrick Blankenberg; Monica Thukkaram; Meagan Makarczyk; Roger Wise; Johnathon Ureel; Simon Chow; Hang Lin; Bruce Bunnell; Qi Gao; Stuart Goodman

Poster No. 1065

Network Perturbation Predicts Shifts In Chondrocyte Bioenergetic Pathways In Response To Extracellular Aging Cues

Tyler J. McNeill; Fabrisia Ambrosio; Hirotaka Iijima

Poster No. 1066

Microfluidic Platform Of The Blood-Joint Barrier To Assess The Effects Of High Blood Glucose On Synovium-Cartilage Crosstalk: Toward A Model Of Diabetic Osteoarthritis

Neeraj Sakhrani; Ratna Sharma; Kedar Krishnan; Joseph E. Viola; Arvind Nandakumar; Mira S. Roosth; Gerard A. Ateshian; Clark T. Hung

Poster No. 1067

Bursa-derived COL4A1 Regulates Inflammation During Rotator Cuff Tendon Healing

Yibin Liu; Zhe Fu; Jingyao Wang; Jinjin Ma

Poster No. 1068

Loss Of The Involucrin Skin Barrier Protein Impairs Bone Microstructure And Strength

Ram N. Yadav; Daniel Oravec; Autumn R. Hicks; Guardia D. Angelica; Guardia D. Angelica; Harika Ileni; Cristina D. Strong; Yener Yeni

Poster No. 1069

Dermatological Complications In Pediatric Orthopedic Casts: A Single-center Prospective Study

Alice Lee; Lynchi Nguyen; Sydney Smith; Kelly Carmichael

Poster No. 1070

Intraneural Vascular Dissimilation Drives Mast Cell Infiltration To Exacerbate Limb Neurological Deficits In Diabetes

Xiangyun Yao; Lingchi Kong; Huimin Xiao; Cunyi Fan

Poster No. 1071

Fractures In SAPHO Syndrome: A Systematic Review Of Clinical Features, Imaging Findings, And Management

Ann Hu; Benjamin W. Gratz; Stephen Rossetti; Ryan S. Murray

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-084 Hip and Knee Arthroplasty - Clinical Outcomes

Poster No. 1072

Intraoperative Recreation Of Preoperative Pelvic Tilt: A Reliable Surgical Technique Of Acetabular Component Positioning In Direct Anterior Total Hip Arthroplasty

Daniel Faraj; Courtney Baker; Peter Y.W Chan; Jacob M. Wilson; Aleksander P. Mika; Anoop Chandrashekar; J. Ryan Martin

Poster No. 1073

Comparison Of Postoperative Outcomes Between Semaglutide And Tirzepatide In Patients Undergoing Total Hip Arthroplasty: A Propensity Score-Matched Cohort Study

Ankit Choudhury; Kevin Wu; Jacob Kodra; Harshavardhan Bollepalli; Carter White; Samuel Wellman; Thorsten Seyler

Poster No. 1074

Comparison Of Postoperative Outcomes Between Semaglutide And Tirzepatide Use In Patients Undergoing Total Knee Arthroplasty: A Propensity Score-Matched Cohort Study

Ankit Choudhury; Kevin Wu; Jacob Kodra; Harshavardhan Bollepalli; Carter White; Thorsten Seyler; Samuel Wellman

Poster No. 1075

The Impact Of Social Media For Adult Reconstruction Surgeons: A Prevalence And Correlation Study With Online And Academic Reputations

Joseph D. Lee; Sameer R. Khawaja; Kevin Y. Heo; Omar Syed; Kene Okafor; Brian Zhou; Ajay Premkumar; Jacob Wilson

Poster No. 1076

Using Wearable Devices To Track Postoperative Recovery Trajectories In Total Knee Arthroplasty Patients

Robert R. Hall; Alexander Hammel; Pamela Chan; Shao-Hsien Liu; Hua Zheng; David Ayers

Poster No. 1076A

How Do Timed Up And Go Scores And Patient Reported Outcomes Compare After Total Knee Arthroplasty?

Kathryn Hiller; Pamela Chan; Laura Grunenkovaitė; Hua Zheng; David C. Ayers

Poster No. 1077

One-year Comparison Of Smart Implant-derived Gait Metrics And Patient-Reported Outcome Measures Following Primary Total Knee Arthroplasty

George Guild III; Avtaar Daftari; Natalie Gresham; Alex Bradham; Courtney Levit; Zachary Ricciardelli; Joseph Schwab

Poster No. 1078

Survivorship Of Unicompartmental Arthroplasty Conversion To Total Knee Arthroplasty: A Retrospective Case-control Study

Mary Bayers-Thering; Tessa DeCieco; Matthew Phillips

Poster No. 1079

Increased Perioperative Risks After Total Knee Arthroplasty In Nonalcoholic Fatty Liver Disease Not As Severe As Cirrhosis

Julian Smith-Voudouris; Joshua Sanchez; Katie Zehner; Jonathan N. Grauer

Poster No. 1080

Comparison Of Subvastus Versus Parapatellar Approach In Total Knee Arthroplasty In Patients With BMI >35: A Matched Cohort Analysis

Ronit Patel; Ryan Pattyn; John E. Whitaker; Langan S. Smith; Arthur L. Malkani

Poster No. 1081

Predicting Forgotten Joint Score And KOOS, JR After Total Knee Arthroplasty Using Machine Learning: A Retrospective Cohort Study

Maggie Head; Maunil Mullick; Langan S. Smith; Luke Byerly; Arinan Dourado; Arthur L. Malkani

Poster No. 1082

What Is The Optimal Age For Total Hip Arthroplasty? Machine Learning Analysis Of A Statewide Dataset

Chloe Heiting; Yi Yiyuan; Susan Goodman; Peter Sculco; Fei Wang; Rich Caruana; Peter Cram; Said Ibrahim; Bella Mehta

Poster No. 1083

Distribution Of Spinopelvic Classifications Among Primary Total Hip Arthroplasty Patients: A Single-center Study

Tatsuhiko Nanri; Masaya Ueno; Yukari Koga; Shunsuke Kawano; Koichiro Kishikawa; Masanori Fujii; Tadatsugu Morimoto

Poster No. 1084

Patellofemoral Alignment Following Total Knee Arthroplasty: A Radiographic Analysis Of 300 Patients With Two Implant Designs

Giselle K. Henry; Ethan Snyder; Rilee Keane; Sabir K. Ismaily; Adam M. Freedhand; David Rodriguez-Quintana; Kenneth B. Mathis; Shuyang Han

Poster No. 1085

Comparing Minimal Clinically Important Difference In Patient Reported Outcome Measures Between Patients Undergoing Primary Total Hip Arthroplasty With A Cemented Or Cementless Stem: A Propensity Matched Study

Muhammad Hamza Ilyas; Hahn Kang; Oh-Joon Kwon; William Sampson; Zhijun Li; Carlo Mannina; Oh-Jak Kwon; Michelle Shimizu; Isaiah Freeman; Margaret Arthur; Sina Afzal; Pengwei Xiao; Young-Min Kwon

Poster No. 1086

Differences In Postoperative Patient-reported Outcome Measures Incemented And Cementless Primary Total Knee Arthroplasty: A Propensity-matched Study

Oh-Jak Kwon; Carlo Mannina; Isaiah Freeman; Oh-Joon Kwon; Zhijun Li; Muhammad Hamza Ilyas; Margaret Arthur; Pengwei Xiao; William Sampson; Hahn Kang; Sina Afzal; Michelle Shimizu; Young-Min Kwon

Poster No. 1087

The Knee Pain Decreases After Total Hip Arthroplasty

Yugo Morita; Yaichiro Okuzu; Toshiyuki Kawai; Kohei Nishitani; Shinichiro Nakamura; Shinichi Kuriyama; Shuichi Matsuda

Poster No. 1088

Differences In Postoperative Patient-reported Outcome Measures With Preoperative GLP-1 Use In Obese Patients Following Primary Total Hip Arthroplasty: A Propensity-matched Study

Isaiah Freeman; Oh-Jak Kwon; Michelle Shimizu; Muhammad Hamza Ilyas; Zhijun Li; Hahn Kang; Margaret Arthur; Oh-Joon Kwon; Pengwei Xiao; Carlo Mannina; Sina Afzal; William Sampson; Young-Min Kwon

Poster No. 1089

No Minimal Clinically Important Difference In Patient Reported Outcomes In Obese Patients With Preoperative GLP-1 Analog Use Undergoing Total Knee Arthroplasty: A Propensity Score Match Analysis

Carlo Mannina; Michelle Shimizu; Zhijun Li; Isaiah Freeman; Pengwei Xiao; Hahn Kang; Margaret Arthur; Muhammad Hamza Ilyas; Oh-Joon Kwon; William Sampson; Oh-Jak Kwon; Sina Afzal; Young-Min Kwon

Poster No. 1090

Minimal Clinically Important Difference In Patient Reported Outcome Measures In Lumbar Fusion Patients Undergoing Primary Total Hip Arthroplasty: A Propensity-matched Study

Zhijun Li; Hahn Kang; Michelle Shimizu; William Sampson; Oh-Jak Kwon; Pengwei Xiao; Isaiah Freeman; Margaret Arthur; Oh-Joon Kwon; Carlo Mannina; Sina Afzal; Muhammad Hamza Ilyas; Young-Min Kwon

Poster No. 1091

No Association Between Tourniquet Use And Patient-reported Outcomes Following Total Knee Arthroplasty In Obese Patients: A Propensity Matched Analysis

Isaiah Freeman; Margaret Arthur; Zhijun Li; Hahn Kang; Sina Afzal; Carlo Mannina; William Sampson; Pengwei Xiao; Oh-Jak Kwon; Oh-Joon Kwon; Michelle Shimizu; Muhammad Hamza Ilyas; Young-Min Kwon

Poster No. 1092

Patient-reported Outcomes Following Primary Total Hip Arthroplasty In Patients With Scoliosis: A Propensity Matched Study

Alina Syros; Oh-Joon Kwon; Sina Afzal; Margaret Arthur; William Sampson; Carlo Mannina; Zhijun Li; Muhammad Hamza Ilyas; Isaiah Freeman; Michelle Shimizu; Oh-Jak Kwon; Pengwei Xiao; Hahn Kang; Young-Min Kwon

Poster No. 1093

Outcomes Of A Gradually Reducing Radius Revision Knee System In Single-stage Revision Procedures - A Large Database Study

Eric Smith; Anshu Gupta; Vanessa Vazquez; Jill Ruppenkamp; Grant Jamgochian; Rodrigo Diaz

Poster No. 1094

Dual-mobility Constructs Or Large Femoral Head Bearings In Revision Total Hip Arthroplasty: A Systematic Review

Mohamad B. Adada; Stephen Lancia; Carlos Higuera-Rueda; Jesus Villa

Poster No. 1095

Impact Of Preoperative Screening For Staphylococcal Colonization On Patient-reported Outcomes Following Primary Total Hip Arthroplasty: A Propensity Matched Study

Muhammad Hamza Ilyas; Margaret Arthur; Pengwei Xiao; Hahn Kang; Oh-Jak Kwon; Sina Afzal; Carlo Mannina; Isaiah Freeman; Oh-Joon Kwon; William Sampson; Michelle Shimizu; Zhijun Li; Young-Min Kwon

Poster No. 1096

Impact Of Preoperative Staphylococcal Colonization On Patient-reported Outcomes Following Primary Total Knee Arthroplasty: Propensity Matched Analysis

Muhammad Hamza Ilyas; Oh-Joon Kwon; Zhijun Li; Margaret Arthur; Hahn Kang; William Sampson; Carlo Mannina; Oh-Jak Kwon; Sina Afzal; Michelle Shimizu; Isaiah Freeman; Pengwei Xiao; Young-Min Kwon

Poster No. 1097

Prospective Evaluation Of Triple-tapered Collared Stem In Primary Total Hip Arthroplasty

Joshua P. Rainey; Brenna E. Blackburn; Nikhil Vallabhaneni; Shanna K. Loughmiller; Jeremy M. Gililand

Poster No. 1098

Patient Reported Outcomes In Patients With Congestive Heart Failure Undergoing Total Knee Arthroplasty: A Propensity Matched Analysis

Carlo Mannina; Muhammad Hamza Ilyas; Isaiah Freeman; Hahn Kang; William Sampson; Oh-Jak Kwon; Zhijun Li; Pengwei Xiao; Oh-Joon Kwon; Margaret Arthur; Sina Afzal; Michelle Shimizu; Young-Min Kwon

Poster No. 1099

Evaluating Associations Between Neighborhood Disadvantage And Hip Fracture Surgery Outcomes

Robin Hu; Duco Laane; Robert K. Wagner; Thirushan Wignakumar; Marco T. Di Stefano; Fatmanur Aydin; Anne Maria van Rossum du Chattel; Marcos Gonzalez; Marielle Emmelot-Vonk; Michael J. Weaver

Poster No. 1100

Influence Of Preoperative GLP-1 Use On Obese Patient Outcomes Following Revision Total Knee Arthroplasty

Muhammad Hamza Ilyas; Hahn Kang; Oh-Jak Kwon; Carlo Mannina; Isaiah Freeman; Oh-Joon Kwon; William Sampson; Zhijun Li; Sina Afzal; Margaret Arthur; Michelle Shimizu; Pengwei Xiao; Young-Min Kwon

Poster No. 1101

Outcomes Of Total Hip Arthroplasty In Males Undergoing Testosterone Replacement Therapy: A Propensity Matched Analysis

Carlo Mannina; Isaiah Freeman; William Sampson; Muhammad Hamza Ilyas; Pengwei Xiao; Hahn Kang; Oh-Joon Kwon; Oh-Jak Kwon; Sina Afzal; Margaret Arthur; Michelle Shimizu; Zhijun Li; Young-Min Kwon

Poster No. 1102

Performance Of A Triple Tapered Medial Collared Cementless Femoral Stem Used Through Posterior Approach In Total Hip Arthroplasty - A Comparative Analysis Using Us Medicare Data

James A. Germano; Anshu Gupta; Biju Varughese; Jill Ruppenkamp; Rodrigo Diaz

Poster No. 1103

No Differences In Patient-reported Outcome Measures Following Primary Total Knee Arthroplasty In Patients With Sleep Apnea

Isaiah Freeman; Carlo Mannina; Muhammad Hamza Ilyas; William Sampson; Zhijun Li; Oh-Jak Kwon; Pengwei Xiao; Margaret Arthur; Hahn Kang; Oh-Joon Kwon; Michelle Shimizu; Sina Afzal; Young-Min Kwon

Poster No. 1103A

Predictive Models And Variables For Persistent Postsurgical Pain Following Total Knee Arthroplasty: A Systematic Review

Calvin Wang; Shaheryar Asad; Lynn Freimanis; Hailey Johnson; Michael Morimoto; Meir Marmor

Poster No. 1104

Association Between Preoperative Periarticular Hip Muscles And Postoperative Outcomes In Hip Osteoarthritis Patients Underwent Total Hip Arthroplasty

Shuta Takahashi; Hyonmin Choe; Hiroyuki Ike; Yamane Takanori; Morita Akira; Yuta Hieda; Yutaka Inaba

Poster No. 1105

Outcomes Of Periprosthetic Distal Femur Fractures By Fixation Construct: A Retrospective Cohort Study

Robin M. Litten; Jared R. Halstrom; Doriann M. Alcaide; Ryan N. McIlwain; Clay A. Spitler; Joseph P. Johnson

Poster No. 1106

Comparative Survival Analysis Of Collared And Collarless Configurations Of A Newly Designed, Press-fit, Triple-tapered Femoral Stem

Benjamin Sketchler; Allyson N. Pfeil; Jeremiah Mekonnen; Corey F. Hryc; Anay Patel

Poster No. 1107

Machine Learning-based Prediction Of 1-year Harris Hip Score After Total Hip Arthroplasty: Analysis Of 8,715 Cases Using Shap

Yota Katsuyama; Masahiko Mihara; Satoshi Takayanagi; Masamoto Hirano; Yukimi Kumahara; Kazuo Hirakawa

Poster No. 1108

Does Employment Status Matter? A Retrospective Analysis Of Prom Improvement Following Total Joint Arthroplasty

Jeremiah Mekonnen; Corey Hryc

Poster No. 1109

Cutting Costs, Not Outcomes: A Comparative Study Of A Global Knee System In TKA

Corey Hryc; Hari Surnedi; Gregory Stocks

Poster No. 1110

Metal On Metal Large-head Total Hip Arthroplasty Versus Hip Resurfacing: A Systematic Review And Meta-analysis Of Clinical Outcomes And Metal Ion Exposure

Jean Shanaa; Orr Amar; Shaheryar Asad; Theodor Di Pauli von Treuheim; Vinay Aggarwal; Scott Marwin

Poster No. 1111

Functional Knee Positioning Predicts Postoperative Stability In CT-based Robotic TKA

Emily Hampp; Azhar Ali; Nicole Szabo; Robert Marchand

Poster No. 1112

Total Knee Arthroplasty Postoperative Day 1 Ambulation Distance And Association With Long Term Functional Outcomes

Benjamin Wooten; Alexander Burbelo; Bella Stuart; Amit Singla; Matthew Bullock

Poster No. 1113

Preoperative Gluteal Muscle Volume And Quality As Predictors Of Functional Recovery After Total Hip Arthroplasty: A 3d Ct-based Analysis

Yota Katsuyama; Masahiko Mihara; Satoshi Takayanagi; Masamoto Hirano; Yukimi Kumahara; Kazuo Hirakawa

Poster No. 1114

Pdgfaa Induces Lepr-expressing Stromal Cells To Mediate Peri-implant Fibrosis

Yunmei Mu; Anastasia Otkarina; Vincentius Suhardi; Lionel Ivashkiv; Matthew Greenblatt; Mathias Bostrom; Xu Yang

Poster No. 1114A

Topical Txa In Revision Total Hip Arthroplasty: Meta-analysis With Subgroup Analysis

Arthur Saroyan; Matthew Helou; Henry Haley; Yzen Al-Marrawi; Mazen Zamzam; Aws Hammad

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-085 Hip and Knee Arthroplasty - Complications/Infections

Poster No. 1115

Association Between Preoperative Deep Vein Thrombosis And D-dimer Levels With Physical Activity In Total Hip Arthroplasty

Yukimi Kumahara; Masahiko Mihara; Satoshi Takayanagi; Masamoto Hirano; Yota Katsuyama; Kazuo Hirakawa

Poster No. 1116

Outcomes Of Perioperative Use Of Inflammatory Anti-interleukin And Anti-tumor Necrosis Factor- α Biologics In Orthopaedic Surgery

Vincent K. Melemai; Ryan Lacinski; Ryan Blake; Tyler Drummond; Alyson Stevens; Dominic Lombardo; Jakub Ratkowski; Colleen Watkins; Matthew Dietz

Poster No. 1117

Do Systemic Bisphosphonates Affect The Risk Of Aseptic Loosening And Revision After Primary Total Knee Arthroplasty? A Systematic Review And Meta-analysis

A. Blake Huffman; Alexander Burbelo; William Stone; Liam Cleary; Aria Darbandi; Salvia Zafar; Amit Singla; Matthew Bullock

Poster No. 1118

Total Knee Arthroplasty Patients With Previous History Of Medical Noncompliance Have Higher Odds Of Adverse Events

Lucas Y. Kim; Jonathan N. Grauer

Poster No. 1119

An Update To The Leukocyte Correction Equation For Traumatic Aspiration In Total Joint Arthroplasty

Cale Dobson; Michael Marinier; Jacob Fisher; Bennett Feuchtenberger; Victoria Tappa; Jacob Elkins

Poster No. 1120

Perioperative Dexamethasone Is Associated With A Reduced Risk Of Periprosthetic Joint Infection Following Aseptic Revision Total Hip And Knee Arthroplasty

Sahil Telang; Pranit Kumaran; Sagar Telang; Ian A. Jones; Julian Wier; Andrew G. Yun; Jay R. Lieberman; Nathanael D. Heckmann

Poster No. 1121

Effects Of Stepwise Versus Conventional Tourniquet Deflation On Systemic Changes In Total Knee Arthroplasty

Hiroki Yoshida; Yasushi Oshima; Makoto Hirao

Poster No. 1122

Should Inter-prosthetic Screws Be Placed When Prophylactically Plating A Femur?

Herman Feller; Aaron P. Beck; Samuel Mosiman; Cameron Trotter; Joshua D. Roth; Christopher Doro

Poster No. 1123

GLP-1 Receptor Agonist Use Is Associated With Superior Outcomes Following Unicompartamental Knee Arthroplasty In Patients With Diabetes

John Slevin

Poster No. 1124

Antibiotic-eluting Calcium Sulfate Beads As A Prophylactic Strategy In High-risk Primary Total Hip Arthroplasty

Brandon Gettleman; Ezekiel Dingle; Kole P. Joachim; Lisa Su; Ryan Ouillette; Adam A. Sassoon

Poster No. 1125

A Novel Molecular Subtyping Based On Proteomics Analysis For Prognosis Predicting In Periprosthetic Joint Infection

Chenghan Chu; Baiqi Pan; Xiaoyu Wu; Yang Xing; Lingli Long; Sheng Puyi

Poster No. 1126

Soft-tissue Hypertrophy And Redundant Plications Evaluated For Their Impact On Postoperative Infection In Total Knee Arthroplasty

John Green; Cale Dobson; Jacob Elkins

Poster No. 1127

Body Mass Index And Subcutaneous Thickness As Predictors Of Infection Following Total Knee Arthroplasty

Peter Chebi; Majd Mzeihem; Nezar Abunnur; Michael McHenry; Mark Gonzalez; Yasser Farid

Poster No. 1128

Glucagon-like Peptide-1 Receptor Agonists Suppresses Adaptive Lymphocyte Responses In Total Joint Replacement Patients

Marco Caicedo; Sara Hilali; Citlali Perez-Leonor; Nadim Hallab

Poster No. 1129

Extended Oral Antibiotic Prophylaxis For Primary Total Joint Replacement In An Ambulatory Surgery Center Setting: A Retrospective Study

George N. Guild; Charlotte C. Baker; Natalie Gresham; Alex Bradham; Courtney Levit; Zachary Ricciardelli

Poster No. 1130

Debridement, Antibiotics, And Implant Retention (DAIR) Within 48 Hours For Acute Knee Periprosthetic Joint Infection May Not Improve Success Rate

Michael F. Shannon; Victoria R. Wong; Andrew J. Frear; Robert Bilodeau; Eduardo Drummond; Johannes Plate; Brian Klatt; Kenneth L. Urish

Poster No. 1131

Treatment Failure Rates Decrease Significantly At Approximately One Year Following Two-stage Exchange Arthroplasty For Periprosthetic Joint Infection

Michael F. Shannon; Victoria R. Wong; Scott Rothenberger; Eduardo Drummond; Kenneth L. Urish

Poster No. 1132

Coding Definition Choice Makes A Difference In Total Joint Arthroplasty Administrative Database Studies

Anish Raju; Anthony E. Seddio; Julian Smith-Voudouris; Joshua Sanchez; John Slevin; Lee E. Rubin; Jonathan N. Grauer

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-086 Hip and Knee Arthroplasty - Implant Materials, Fixation and Wear

Poster No. 1133

An In Vitro Study On The Toxicological Effect Of Metal Products On Adipose Tissue: Obese Population With Hip Implant

Rukshini Venkatesan Bharathi; Kamryn Lender; Mareeswari Paramasivan; Abeer Mohamed; Mark L. Barba; Mathew Mathew

Poster No. 1134

Cementless Total Knee Arthroplasty Using A Highly Porous Tibial Baseplate In Morbidly Obese Patients: Minimum 10-year Follow-up

Essa Gul; Arun Nadar; Sebastien Lustig; Langan S. Smith; Joseph D. Henningsen; Arthur L. Malkani

Poster No. 1135

Bone Stress Relaxation And Abrasion In Press-fit Femoral Knee Implant Fixation: Experimental And Computational Analysis

Dennis Janssen; Thomas Gersie; Thom Bitter; Robert Freeman; Nico Verdonschot

Poster No. 1136

Effect Of Chlorine Dioxide Terminal Sterilization On The Mechanical And Chemical Properties Of Uhmwpe Used In Total Joint Arthroplasty

Michael Tartaglia; Aileen McGovern; Brinda Badwe

Poster No. 1137

Beyond The Reputation: The Spectrum Of Wear And Corrosion In 888 Metal-on-metal Retrieved Total Hip Arthroplasties

Taber M. Ball; Sang-Hyun Park; Joseph Moon; Sophia N. Sangiorgio; Edward Ebramzadeh

Poster No. 1138

Taper Corrosion In Metal-on-polyethylene And Metal-on-metal Total Hip Arthroplasty: A Matched Blinded Observer Retrieval Analysis

Taber M. Ball; Sang-Hyun Park; Sophia N. Sangiorgio; Edward Ebramzadeh

Poster No. 1139

Abrasive Wear Comparison Of CoCr Femurs To TiN-coated Femurs

Kailey L. Fitzgerald; Behzad Farshid; Geoffrey H. Westrich; Sally LiArno

Poster No. 1140

Comparative Evaluation Of Scratch Resistance In Total Knee Femoral Implants: TiN-Coated Titanium Alloy (Ti6Al4V) Vs. Oxidized Zirconium Alloy (Zr-2.5Nb)

Behzad Farshid; Andrew Dumont

Poster No. 1140A

Short-term Survivorship Of A Novel Variable-angle Locking Screw Acetabular Component In Complex Acetabular Reconstruction

George N. Guild; Charles Long; Natalie Gresham; Alex Bradham; Anoop Chandrashekar; Emilio Arellano; Joseph Schwab; Jacob Wilson; J. Ryan Martin; Charlotte C. Baker; Zachary Ricciardelli; Brandon Naylor

Poster No. 1141

Incidence Of Early Peri-prosthetic Hip Fractures In Patients Over Age 70 Following Primary Tha Using A Novel Triple-tapered Collared Femoral Stem: A Multi-center Study

Andrew J. Grimm; Nolan S. Smith; Arthur L. Malkani; Jeremy Gililland; David J. Mayman; Geoffrey H. Westrich; Karlos E. Zepeda; Abid M. Khan; Maunil Mullick; Preston Willey; Nikhil Vallabhaneni; Langan S. Smith; Seth A. Jerabek

Poster No. 1142

Total Hip Arthroplasty Frictional Torque Testing In A Deformed Shell Model

Ilya Borukhov; Kevin Abbruzzese; Jarett Michaelson; Anthony Habib; Sally LiArno

Poster No. 1143

Total Knee Arthroplasty Wear Simulation Under Varying Component-to-simulator Alignment

Ilya Borukhov; Rafael Baez; Tomasz Bazel; Sally LiArno

Poster No. 1144

A Comparison Of Titanium Particulate Implant Debris With Titanium Particulate In Select Food Products

Nadim Hallab; Salem Hallab; Lauryn Samelko

Poster No. 1145

No Difference In Patient Reported Outcomes Between Customized And Off-the-shelf Unicompartmental Knee Replacements

Carlo Mannina; Hahn Kang; Muhammad Hamza Ilyas; Isaiah Freeman; William Sampson; Oh-Jak Kwon; Zhijun Li; Margaret Arthur; Pengwei Xiao; Oh-Joon Kwon; Michelle Shimizu; Sina Afzal; Young-Min Kwon

Poster No. 1146

Total Hip Wear Simulation With Dynamic Separation Per Iso 14242-4 On An Orbital Hip Simulator

Ilya Borukhov; Rafael Baez; Sally LiArno

Poster No. 1147

Early Intraoperative And Clinical Outcomes Of Robotic-assisted Unicompartmental Knee Arthroplasty Using The Velys System

Brandon K. Couch; Benjamin Sketchler; Jeremiah Mekonnen; Allyson N. Pfeil; Corey F. Hryc; Ugonna N. Ihekweazu

Poster No. 1148

The Effects Of Fixturing On Porous Coating Strength Testing - A Finite Element Study

Samuel Fang

Poster No. 1149

Local Tissue Response And Bone Ingrowth Into Titanium Nitride-Coated 3D-Printed Porous Titanium Structures In A Canine Model

Andrew K. Wong; Nicolette D. Jackson; Michael Tanzer; Michel Assad; Chau G. Ngo; Brinda Badwe; Lewis Mullen

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-087 Hip and Knee Arthroplasty - Kinematics and Computational Modeling

Poster No. 1150

Functional Knee Positioning Using Robotic-Assisted Total Knee Arthroplasty

Catherine DiGangi; Isaac Dayan; Amit Manjunath; Daniel Waren; Kareem Omran; Shiv Lamba; Joshua Rozell; Matthew Hepinstall; Armin Arshi

Poster No. 1151

Moist Heat Sterilization Simulation For Orthopedic Medical Devices And Trays

Rahman Ansari; Raja Jayendiran; Bharath S; Preeti Chopra; Venkat Perumal; Rehan MD; Qing Qing Qiu

Poster No. 1152

Validation Of A Hip Stem Implantation Algorithm To Quantify Surgeon Control Over Anterior Femoral Offset

Huizhou Yang; Sam Mattei; Xuzheng Han; Casey Myers; Paul Rullkoetter; Chadd Clary

Poster No. 1153

Functional Alignment In Total Knee Arthroplasty Restores In Vivo Cruciate Ligament Forces And Knee Kinematics More Effectively Than Mechanical Alignment

Kenichi Kono; Tomofumi Kage; Hiroshi Inui; Takaharu Yamazaki; Shuji Taketomi; Ryota Yamagami; Kohei Kawaguchi; Takahiro Arakawa; Ryo Murakami; Takashi Kobayashi; Tomoki Murakami; Sora Koiwa; Masashi Tamaki; Shoji Konda; Teruya Ishibashi; Tetsuya Tomita; Darryl D'Lima; Sakae Tanaka

Poster No. 1154

In Vivo Kinematic Comparison Of Medial Pivot Total Knee Arthroplasty In Weight-bearing And Non-weight-bearing Deep Knee Bending

Kosuke Kitanishi

Poster No. 1155

Impact Of Alignment Strategy On Forgotten Joint Score Outcomes Following Total Knee Arthroplasty: Tibia First Vs. Femur First

Wyatt T. Ware; John E. Whitaker; Andrew Swiergosz; Gavin W. Clark; Serene Lee; Dermot Collopy; Langan S. Smith; Arthur L. Malkani

Poster No. 1156

Augmented Symmetrical Cones Outperform Asymmetrical Cones In Osteoporotic Tibial Defects: A Biomechanical Analysis Of Implant Stability And Bone Overload

Yi Ren; Chloe Scott; Shuqiao Xie; Pankaj Pankaj

Poster No. 1157

Biomechanical Curve Analysis For A Rabbit Model Of Knee Stiffness

Mason Carstens; Thor Andreassen; Nils Meissner; Matthew Weintraub; Oksana Pichurin; Mark Morrey; Joaquin Sanchez-Sotelo; Daniel Berry; Roman Thaler; Matthew Abdel

Poster No. 1158

Hip Kinematics During Racket Swinging After Total Hip Arthroplasty: Rotational Range Of Motions And Prosthetic Contact

Yuki Nakao; Satoshi Hamai; Toshiki Konishi; Takahiro Inoue; Wataru Uehara; Shinya Kawahara; Daisuke Hara; Goro Motomura; Ryosuke Yamaguchi; Takeshi Utsunomiya; Koji Murakami; Satoru Harada; Yasuharu Nakashima

Poster No. 1159

Reducing Tibial Slope Or Upsizing The Femoral Component Can Mitigate Anterior-posterior Laxity At Expense Of Super-physiological Mcl Tension And Loss Of Femoral Rollback In Pcl-resected Medial Congruent Tka

Reza Pourmodheji; Cynthia Kahlenberg; Brian P. Chalmers; Timothy Wright; Geoffrey Westrich; David Mayman; William Long; Peter Sculco; Carl Imhauser

Poster No. 1159A

A Novel Method To Limit Parallax Error In Fluoroscopic Cup Orientation During Total Hip Arthroplasty

Daniel Faraj; Yehyun Suh; Courtney Baker; Daniel Moyer; J. Ryan Martin

Poster No. 1160

Functional Knee Positioning Restores Native Kinematic Patterns In Total Knee Arthroplasty

Azhar Ali; Emily Hampp; Nicole Szabo; Robert Marchand

Poster No. 1161

Extensor Mechanism Kinematics In Hinged Knee Systems: A Comparison Of A Posterior And Central Hinge

Azhar Ali; Oliver Jenner; Geoffrey Westrich

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-088 Hip and Knee Arthroplasty - Robotics and AI

Poster No. 1162

Burring Technique Is More Reproducible For The Tibial Component Placement In The Robotic Assisted Tka Than Bone Saw Technique

Koji Seike; Takanori Iriuchishima; Kensaku Hamamoto

Poster No. 1163

Robotic Assistance For Low-volume Total Knee Arthroplasty Surgeons Yields Comparable Perioperative Outcomes To Those Of High-volume Surgeons Using Conventional Techniques

Albert H. Lee; Om B. Jahagirdar; John P. Slevin; Lee E. Rubin; Jonathan N. Grauer

Poster No. 1164

Using Autonomous Segmentation To Identify Radiographic Benchmarks For Surgical Planning In Knee Arthroplasty

Karlos Zepeda; Kwabena Ofori-Atta; Carmelo Burgio; Seong J. Jang; Xavier Garcia; Michael Mazzucco; Theofilos Karasavvidis; Cale Pagan; Ruba Sokrab; Eytan Debbi; David Mayman; Seth Jerabek; Peter Sculco; Jonathan Vigdorichik

Poster No. 1165

Functional Alignment In Robotic-assisted Total Knee Arthroplasty Enhances Function, Posture, And Patient Satisfaction

Marcel Betsch; Oguzhan Uzun; Philipp Boosz

Poster No. 1166

AI-powered 3D Bone Reconstruction From X-ray Imaging For Robotic Knee Arthroplasty

Yusif Gurbanli; Jaron Mohammed; Jonathan M. Stern; Antonio Fernandez-Perez; Natalia Cruz-Ossa; Victor H. Hernandez; Francesco Travascio

Poster No. 1167

Comparative Analysis Of Perioperative And Early Postoperative Outcomes In Robotic-assisted Versus Manual Revision Total Knee Arthroplasty

Alexander Burbelo; Christopher Potts; William Stone; Andrew Murphy; Austin Doyle; Christopher Schmidt; Amit Singla; Matthew Bullock; Alexander Caughran

Poster No. 1168

Accuracy Of Coronal Implant Positioning In Robotic-assisted Total Knee Arthroplasty: A Comparative Study Of Mako, Rosa X-ray, And Rosa Imageless Systems

Angelina Kwan; Daisuke Fukui; Daisuke Nishiyama; Manabu Yamanaka; Tuyoshi Deguchi; Yuta Kaimochi; Koichi Masuda; Morihiko Tonoo; Hiroshi Yamada

Poster No. 1169

A High-precision Automated Test Set-up For Evaluating Optical Passive Tracker Performance In Surgical Navigation

Saaransh Jain; Goran Kadribasic

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-089 Infection - Biomarkers and Outcomes

Poster No. 1170

Transcriptomic Characterization Of Acute Implant Associated Infection

Baiqi Pan; Amita Sekar; Yingfang Fan; Fawaz Ben Malick; Keita Fujino; Orhun Muratoglu; Ebru Oral

Poster No. 1171

Development Of An Automated TEM-Based Biomarker Of Minimum Biofilm Eradication Concentration

Levy A. Sominsky; Linjun Yang; Karen L. De Mesy-Bentley; Victoria Koltchine; Gowri Muthukrishnan; Chao Xie; Edward M. Schwarz

Poster No. 1172

A Point-of-care Electrochemical Biosensor For Early Detection & Monitoring Of Periprosthetic Joint Infection

Puranjay Gupta; Vaishnavi Guruprasad; Mareeswari Paramasivan; Edith Zhan; John Hamilton; Markus Wimmer; Mathew Mathew

Poster No. 1173

Predictors Of Increased Length Of Stay And Increased Cost In Readmissions For Spinal Surgical Site Infections

Phillip Alexeev; Ryan Snowden; Molly Szpakowski; Pitcherita Anthenor

Saturday, March 28, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS1-090 Infection - Treatment and Therapeutics

Poster No. 1174

Halicin-rifampicin Combinations Are More Effective Than Monotherapy In A Murine S. Aureus Biofilm Model Of Fracture Related Infection

Allison Wintring; Joash Suryavanshi; Akira Morita; Jason Minnich; Roman Natoli; Ed Greenfield

Poster No. 1175

A Covalently Bound Surface Coating Of Methacryloyloxydodecyl Pyridinium Bromide (mdpb) Reduces Microbial Surface Contamination In An In Vitro Model

Steven Gitelis; Gene Kulesha

Poster No. 1176

Effects Of High Antibiotic Concentrations On Human Umbilical Vein Endothelial Cells

Genta Fukumoto; Tomoaki Fukui; Keisuke Oe; Yohei Kumabe; Kenichi Sawauchi; Ryota Nishida; Hyuma Kondo; Fnu Jonathan; Takehiro Konishi; Ryowa Mineo; Akihiro Maruo; Ryosuke Kuroda

Poster No. 1177

Evaluation Of The Effects Of Hydrogen Peroxide And LED Irradiation On Biofilms Of Clinical Isolates From Orthopedic Infections

Hiroto Kono; Hyonmin Choe; Kimi Ishikawa; Hiroyuki Ike; Akira Morita; Yuta Hieda; Hironori Yamane; Akira Ihara; Takaaki Kitano; Yutaka Inaba

Poster No. 1178

Comparison Of Viable And Cadaveric Human Bone Model Environments For Evaluating Wound Irrigation Solutions

Shea S. Maxey; Hugh Jones; Robert Coggins; Rebekah J. Park; Alisina Shahi

Poster No. 1179

Development Of An In Vivo Polymicrobial FRI Model And Evaluation Of The Efficacy Of A Tobramycin-Loaded Hydrogel As Prophylaxis.

Noemi Reinert; Claudia Zindl; Nada Kholeif; Matteo D'Este; Geoff Richards; Thomas Fintan Moriarty; Claudia Siverino

Poster No. 1180

Evaluating The Minimum Biofilm Eradication Concentration (mbec) Of Oxacillin For Staphylococcus Aureus Isolates From Acute, Sub-acute, And Chronic Prosthetic Joint Infections

Paris E. Taylor; Elizabeth Stewart; Beethi Sinha; Matthew Dietz

Poster No. 1181

Staphylococcus Aureus Exhibits Altered Growth And Response To Antibiotics In A Polymicrobial Hypoxic Biofilm Model

Lucy C. Bowden; Yiwei Yan; Orhun Muratoglu; Ebru Oral

Poster No. 1182

Risk Factors Associated With Elevated Serum Gentamicin Levels In Hip And Knee Joints Treated With Continuous Local Antibiotic Perfusion

Masashi Shimoda; Hyonmin Choe; Yuta Hieda; Hiroyuki Ike; Koki Abe; Yutaka Inaba

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-091 Knee - Diagnostics

Poster No. 1183

Mvanet: A Unified Deep Learning Model For Binary And Multi-class Knee Mri Diagnosis

Qi Luo; Chengwei Rao; Li Zhou; Si Wu; Jinjin Ma

Poster No. 1184

Comparing Methods For Modeling Shapes Of The Tibia And Femur In Knee Osteoarthritis

James R. Peters; Patrick Yeh; Carl S. Winalski; Xiaojuan Li

Poster No. 1185

The Accuracy And Reproducibility Of The KI Grade Evaluation Using Chat Gpt In The Asian Population

Takanori Iriuchishima; Sang-Yang Lee; Satoshi Okamoto; Daika Sato

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-092 Knee - Growth, Development and Aging

Poster No. 1186

Age- And Sex-dependent Bone Phenotype And Severe Spontaneous Osteoarthritis In Atp13a2 Knockout Mice

Abdulkadir Nur; Ethan Ethan; Huzafa Huzafa; Madison M. Buckles; Nada H. Warda; Amogh Kankanwadi; Mohammad Yunus Ansari

Poster No. 1187

Cellular Senescence Markers In The Infrapatellar Fat Pad During Knee Osteoarthritis

Vishnu Ayalasomayajula; Hayley Peters; Pratibha Potla; Mohit Kapoor; Vidyani Suryadevara

Monday, March 30, 2026

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Room #: Hall A

PS2-093 Knee - Injury and Healing

Poster No. 1188

Innervation Shifts In Preclinical Models Of Knee Osteoarthritis

Janak Gaire; Julianna Gonzalez; Mairobys Socorro; Folly Patterson; Shane Preister; Robert Dalton; Matthew Rexroad; Blanka Sharma; Yenisel Cruz-Almeida; Robert Caudle; Alejandro Almarza; Kyle Allen

Poster No. 1189

Changes In Patellar Tendon Structure After Bone-Patellar Tendon-Bone Autograft ACLR Relates To Knee Extensor Strength

Hayley P. Smitheman; Caroline Lisee; Christin Büttner; Natalia Favoreto; Elizabeth Bjornsen; Stephanie Cone; Patrick Corrigan; Jeffrey Spang; Alex Creighton; Ganesh Kamath; Samantha Tayne; Troy Blackburn; Geoffrey Handsfield; David Berkoff; Christopher D. Ingersoll; Joe Hart; Brian Pietrosimone

Poster No. 1190

Early Peripheral Osteophyte Lipping Drives Early Femoral Bone Surface Growth Following Anterior Cruciate Ligament Reconstruction

Anoosha Pai S; McKenzie S. White; Marianne S. Black; Katherine A. Young; Ashley Williams; Seth L. Sherman; Constance R. Chu; Feliks Kogan; Garry E. Gold; Brian A. Hargreaves; Akshay S. Chaudhari; Anthony A. Gatti

Poster No. 1191

High Prevalence Of Spin In Systematic Reviews And Meta-analyses Reporting On Stem Cell Injections For The Treatment Of Knee Osteoarthritis

Arjun Aron; Natalie M. Kistler; Ryan C. Palmer; Cory K. Mayfield; Mary K. Richardson; Jay R. Lieberman; Nathanael D. Heckmann

Poster No. 1192

Mitochondrial DNA Mutations In The Polymerase Gamma Mutator Mouse Increases The Severity Of Traumatic Osteoarthritis

Nada H. Warda; Abdulkadir Nur; Amogh Kankanwadi; Madison M. Buckles; Huzafa Khanzada; Ethan Hyrne; Mohammad Ansari

Poster No. 1193

Recovery Trajectories Differ For Quadriceps Strength After ACL Reconstruction

Faheem Pottayil; Devin Kelly; Kelsey Casadonte; Joe Hart

Poster No. 1194

Kinesiophobia, Not Squat Loading Asymmetry, Correlates With Poor Patient-Reported Outcomes Following ACL Reconstruction

Andrew M. Koessler; Devin K. Kelly; Joe M. Hart

Poster No. 1195

A Biomechanical Assessment Of Ski Binding Release To Prevent ACL Tear During The Phantom Foot Ski Injury

Natalia D. McIver; Leilani Baker; Bryan Medina De La Paz; Nicholas Newcomb; Dustin Richter; Christina Salas

Poster No. 1196

Subject-specific Computational Models Of The Acl-deficient Knee Capture Inter-subject Variations In Tibiofemoral Instability

Reza Pourmodheji; David Shamritsky; Erin Berube; Swithin Razu; Joseph Manzi; Jacob Hirth; Danyal Nawabi; Thomas Wickiewicz; Andrew Pearle; Carl Imhauser

Monday, March 30, 2026

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Room #: Hall A

PS2-094 Knee - Structure, Function and Mechanics

Poster No. 1197

Gait Differences Between Patients With Primary And Revision Anterior Cruciate Ligament Reconstruction

Molly Dennison; Hayley P. Smitheman; Natalia Favoreto; Christin Büttner; J. Troy Blackburn; Jeffrey T. Spang; Alex Creighton; Ganesh M. Kamath; Samantha Tayne; Brian Lau; Virginia B. Kraus; Brian Pietrosimone

Poster No. 1198

Improved Bone And Cartilage Segmentation In Knee Mri Using A Super-resolution Convolutional Neural Network

Isabella B. Beortegui

Poster No. 1199

Elucidating The Mechanisms Of Aberrant Angiogenesis Associated With Pain Induction In Knee Osteoarthritis

Michiaki Sato; Riku Saito; Kazuki Hotta; Takanori Kokubun

Poster No. 1200

Characteristic Of Knee Joint Loading And Muscle Activation In Knee Osteoarthritis Patients With Bone Marrow Lesions

Satoshi Kojima; Motoki Kuroo; Jun-ichi Hata; Yuna Usami; Takahito Nakamura; Takanori Kokubun

Poster No. 1201

Removal Of Marginal Osteophytes Beneath Collateral Ligaments Increases Laxity In Osteoarthritic Cadaveric Knees

Lesley R. Arant; Amiya C. Gupta; Molly A. Day; Joshua Roth

Poster No. 1202

Proximal Multi-joint Coordination Underlying Dynamic Knee Instability In Osteoarthritis

Atsushi Hoki; Momoko Yamagata; Tsubasa Iwasaki; Hirotaka Iijima

Poster No. 1203

Analyzing The Placement Of A Novel Plate For Fixation Of Tibial Tubercle Osteotomy: A Cadaver Study

Tessa DeCicco; Timothy Damron

Poster No. 1204

Histological Analysis Of Structural Alterations Towards Innervation Changes In Human Knee Osteoarthritis Patients

Ashleigh L. Abbott; Janak Gaire; Robert Dalton; Shane Priestler; Priya Kulkarni; Folly Patterson; Michael Strinden; Makalia Robinson; Taylor Hord; Kaitlin Southern; Hayden J. Good; Jose Peaguda; Amelia Adin; Matthew Scolieri; Peter Neubert; Lauryn Lafayette; Samantha Gupton; Katherine Phy; Elisabeth Collier; Julianna G. Gonzalez; Alejandro Almarza; Robert M. Caudle; Hernan A. Prieto; Yenisel Cruz-Almeida; Kyle D. Allen

Poster No. 1205

Multi-domain Statistical Shape Modeling Of Anatomic Variations Underlying The J-sign In Patellofemoral Instability Patients

Adam Yanke; Edouard Augustin; Kofi Acheampong; Divesh Sachdev; Nicholas Lemme; Catherine Yuh

Poster No. 1206

A Novel Method Of Quantifying Changes In Tibiofemoral Joint Stability After Ligament Injury Via Eigendecomposition Using In Vitro Robotic Testing

David Shamritsky; Brian Frondorf; Reza Pourmodheji; Philipp Pape; Erin Berube; Lexie Bae; Bryce Demopoulos; Andrew Pearle; Danyal Nawabi; Thomas Wickiewicz; Carl Imhauser

Poster No. 1207

The Impact Of Tibial Slope On Knee Stiffness In An Advanced Knee Simulator Model

Kevin Abbruzzese; Kailey Fitzgerald; Michael Dunbar; Yogesh Mittal; Jared Weir; Michael Mont; Sally LiArno

Poster No. 1208

Augmentation Of ACL Repair With Scaffold Assisted All Reconstruction Normalizes Knee Kinematics In A Cadaveric Model

Bryson Kemler; Dave T. Huang; Seena Sebt; Joaquin Batista; Leonard Onsen; Natasha Trentacosta; Bert Mandelbaum; Melodie Metzger

Poster No. 1209

Withdrawn

Poster No. 1210

The Most Isometric Attachment Site For Lateral Extra-articular Tenodesis Is Distal And Posterior To The Lateral Femoral Epicondyle.

Shohei Yamauchi; Tom Gale; Shu Watanabe; Kohei Kamada; Volker Musahl; William Anderst

Poster No. 1211

Automated Cartilage And Meniscus Segmentation On 7t T2* MRI For Quantitative Assessment Of Knee Joint With Minimal Expert Refinement

Eisa Hedayati; Karsten Knutsen; Abdul Wahed Kajabi; Collin Steinberger; Abhinav Lamba; Asif Abul Hassan; Hassan Ahad; Jutta Ellermann

Poster No. 1212

In Vivo Analysis Of Knee Pivot Location In Osteoarthritis: Role Of Laxity And Disease Severity

Sean E. Higinbotham; Kendall M. Mulvaney; Cheryl A. Blackwood; Paul J. Rullkoetter; Clint B. Blackwood; Kevin B. Shelburne

Poster No. 1213

Comparison Of Static And Continuous Knee Laxity Testing In Cadaveric Knees Using A 6-DOF Robotic System

Gabe J. Colbrunn; Aiden C. Magoolaghan; Elizabeth B. Pace; Tara F. Nagle

Poster No. 1214

Validation Of Finite Element Model Prediction Of Patellofemoral Joint Mechanics

Adam Yanke; Carolina S. Haboba Nebel; Thomas Turinske; Edouard Augustin; Kofi Acheampong; Erik Haneberg; Hannah Lundberg

Poster No. 1215

Temporal Changes In Acl Graft Structure And Composition And Knee Laxity Assessed Via Quantitative Mri And A Novel Multiplanar Arthrometer

Erin Berube; Jack Consolini; Elizabeth Koretsky; Deborah Jones; Theresa Chiaia; Andrew Pearle; Thomas Wickiewicz; Scott Rodeo; Danyal Nawabi; Hollis Potter; Matthew Koff; Carl Imhauser

Poster No. 1216

Patient-specific Contouring Of Fixation Plating Improves Stability In Comminuted Distal Femur Fractures

Hesham Tanbour; Majd Mzeihem; Farid Amirouche; Yasser R. Farid

Poster No. 1217

Comparison Of Laxity In Cruciate Retaining Total Knee Arthroplasty Patients And Healthy Subjects Using A Novel Multiplanar Arthrometer

Erin Berube; David Shamritsky; Swaneet Jha; Julianna Villella; Claude Regis; Akinola Oladimeji; Thomas Wickiewicz; Timothy Wright; Michael Parides; Stephen Lyman; Cynthia Kahlenberg; Eytan Debbi; William Long; Geoffrey Westrich; David Mayman; Peter Sculco; Brian Chalmers; Carl Imhauser

Poster No. 1218

Deciphering The "art" In Modeling And Simulation Of The Knee Joint: Model Benchmarking

Maryam Nazem; Thor Andreassen; Nancy Kim; Kate Moyle; Jason Halloran; Casey Myers; Snehal Chokhandre; Thor Besier; Kevin Shelburne; Ahmet Erdemir; Carl Imhauser; Peter Laz

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PS2-095 Knee - Surgical and Non-Surgical Interventions

Poster No. 1219

Valgus Bracing Alters Cartilage Stresses In Medial Knee Osteoarthritis: A Neuromusculoskeletal-Finite Element Analysis

Joose P. Peitola; Amir Esrafilian; Atte S. Eskelinen; Scott C. Starkey; David J. Saxby; Laura E. Diamond; Michelle Hall; Rami K. Korhonen

Poster No. 1220

Longitudinal T2 Mapping Mri Evaluation Of Meniscal Changes After High Tibial Osteotomy: Greater Alterations In The Medial Meniscus

Satomi Abe; Keisuke Matsukura; Hiroshi Ito

Poster No. 1221

Accuracy Of Distalizing Tibial Tubercle Osteotomy: Correlation Of Intended And Actual Outcomes

Adam Yanke; Divesh Sachdev; Jay Amin; Cade Smelley; Daniel Shinn; Nicholas Lemme

Poster No. 1222

Evolving Trends In Tibial Tubercle Osteotomy With Versus Without Concomitant Medial Patellofemoral Ligament Reconstruction: Patient And Surgeon Factors Impacting Surgical Decisions

Om Jahagirdar; Johannes Sieberer; Jonathan N. Grauer; John P. Fulkerson

Poster No. 1223

Delayed Administration Of Apixaban Is Associated With Lower Bleeding Complications And Acute Anemia Without Increasing Thromboembolic Risk Following Revision Total Knee Arthroplasty

Pranit Kumaran; Matthew Lim; Sahil Telang; McKenzie Culler; Ryan C. Palmer; Sagar Telang; Gabriel Burdick; Jay R. Lieberman; Nathanael D. Heckmann

Poster No. 1224

Costs And Health Care Resource Utilization Of Liposomal Bupivacaine And Ropivacaine In Total Knee Arthroplasty In The Hospital Outpatient Department: A Propensity Score Matched Cohort

Gabriel Wong; Daniel Goltz; Jennifer Lin

Poster No. 1225

Impact Of Sagittal Slope Reducing High Tibial Osteotomy And Lateral Extraarticular Tenodesis On Tibiofemoral Contact Mechanics And Meniscal Loading In Knees With Increased Posterior Tibial Slope: A Computational Study

Isabella Gomez Hjerthen; Reza Pourmodheji; Mark Amirtharaj; Thomas Wickiewicz; Andrew Pearle; Matthieu Olivier; Danyal Nawabi; Carl Imhauser

Poster No. 1226

An Evaluation Of Aspirin For Thromboembolic Chemoprophylaxis In Aseptic Revision Total Knee Arthroplasty

Arjun Aron; Matthew Lim; Sahil Telang; Ryan C. Palmer; Sagar Telang; Jay R. Lieberman; Nathanael D. Heckmann

Poster No. 1227

Biomechanical Evaluation Of Suspensory Loop Attachment Techniques For Quadriceps Tendon Autograft In Anterior Cruciate Ligament Reconstruction

Miguel A. Diaz; Humberto Cardona; Rachel Carlson; Bailey Propps; D. Trey Remaley; Neil S. Kumar

Poster No. 1228

90% Joint Preservation Following Arthroscopy-guided Subchondral Bml Treatment At Two Years

Austin Looney; Raturaj Patil; Raj Pandya

Poster No. 1229

Active Feedback Gait Retraining To Modify Ambulatory Loads In Anterior Cruciate Ligament-reconstructed Knees

Jade He; Jennifer C. Erhart-Hledik; Ashley A. Williams; Constance R. Chu

Poster No. 1230

A Focus On Surgical Optimization: Perioperative Strategies For ACL Reconstruction In Patients With Poor Bone Health

Nicholas Koumontzis; Stephen Williams; Peter Cummings

Poster No. 1231

Unicortical Quadriceps Tendon Repair With All-Suture Anchors Results In Less Gap Formation Than Traditional Hard-body Suture Anchors

Marcos Tejada; Brian Werner; Jocelyn Wittstein; Rachel Frank; Mary Kate Evans; Anthony Khoury; Oliver Hauck; Benjamin Smith

Poster No. 1232

Quadriceps Tendon Autografts Yield Greater Cross-sectional Area Than Bone Patellar Tendon Bone Autografts For Anterior Cruciate Ligament Reconstruction With Additional Variation Based On Harvest Technique

Adam B. Yanke; Cade C. Smelley; Edouard Augustin; Divesh Sachdev; Kofi K. Acheampong; Andrew S. Bi; Morgan Angotti

Poster No. 1233

Relative Impact Of Patellar Under-resection Versus Weight Loss On Quadriceps Force Required For Vertical Thrust During Stair-ascent After Posterior Stabilized Total Knee Arthroplasty

Reza Pourmodheji; Brian P. Chalmers; William Long; Timothy Wright; Peter Sculco; David Mayman; Geoffrey Westrich; Cynthia Kahlenberg; Carl Imhauser

Poster No. 1234

A Novel Device For Prevention Of ACL Injury: A Preliminary Cadaveric Biomechanical Evaluation

Elizabeth Pace; Kylin Shaw; Bhavy Metakar; Tara Nagle; Robb Colbrunn

Poster No. 1235

Durable Functional And Pain Improvements Following Arthroscopy-Guided Subchondral BML Treatment, Independent Of Radiographic Severity

Austin Looney; Raturaj Patil; Raj Pandya

Poster No. 1236

Cyclic Creep Of Autografts And Allografts Commonly Used In Anterior Cruciate Ligament Reconstruction Is Affected By The Magnitude Of Graft Tensioning

Bryan G. Medina de La Paz; Leilani Baker; Shane Johns; Natalia D. McIver; Dustin Richter; Christina Salas

Poster No. 1237

Withdrawn

Poster No. 1238

Intraarticular Injections Of Purified Exosome Product Reduce Functional Impairment In A Turkey Model Of Acl And Meniscal Deficiency

Xing Lei; Chunfeng Zhao

Monday, March 30, 2026

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Room #: Hall A

PS2-096

Meniscus - Injury and Healing

Poster No. 1239

The Biological Role Of The Meniscus And The Influence Of Synovium Co-culture On Meniscus Healing.

Dunja Scheepmaker; Christopher Nagelli; Katherine Lydon; Roel Custers; Lucienne Vonk; Aaron Krych; Daniel Saris; Jasmijn Korpershoek

Poster No. 1240

Age And Shallower Medial Tibial Plateau Depth As Risk Factors For Medial Meniscus Posterior Root Tear: A Multivariate Analysis Of Coronal And Sagittal Planes

Toshiki Kohara; Yuki Okazaki; Takayuki Furumatsu; Koki Kawada; Yusuke Yokoyama; Tsubasa Hasegawa; Toshifumi Ozaki

Poster No. 1241

Multiplexed Regulation Of Meniscal Cell Phenotype And Biomarker Expression Among Matrix-synthetic Populations

Susana P. Simmonds Bohorquez; Anika Shah; John C. Bradford; Ronald Kwon; Jenny Robinson

Poster No. 1242

Bioactive CPC-loaded Scaffold Enhances Meniscal Repair In A Yucatan Minipig Model

Salomi Desai; Jay Trivedi; Abigail Boduch; Cecily Adler; Crystal Murray; Braden Fleming; Brett D. Owens; Chathuraka Jayasuriya

Poster No. 1243

3D Geometry Scanning And Structural Integrity Assessment To Support Meniscus Allograft Transplantation

Shuchun Sun; Ge Pan; Jichao Zhao; William Michael Pullen; Jian Chen; Haiyang Ma; William C. Bridges; Dustin Mueller; Hai Yao; Shangping Wang

Poster No. 1244

Comparison Of Reoperation Rates After Saucerization Versus Saucerization With Repair In Adolescents With Lateral Discoid Meniscus Tears

Hannah Marzo; Swiatek Patrick; Adam Weaver; Matthew Brown

Poster No. 1245

Case Report Of A Female With A Medial Discoid Meniscus Complicated By A 10-year History Of Juvenile Rheumatoid Arthritis

Syed Ali; Donna Pacicca; Caroline Dealy; Vishali Ramsaroop; Matthew Brown

Poster No. 1246

Anatomically Precise Meniscus Derived Scaffolds With Zonal And Regional Fidelity For Functional Repair

Fatima Elzahra Essassi; Solaiman Tarafder

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PS2-097

Meniscus - Structure, Function and Mechanics

Poster No. 1247

Towards Developing A Totally Synthetic Meniscus

Julissa Gracia; Devin Greis; Alicia Jackson; Leonard Pinchuk; Francesco Travascio

Poster No. 1248

Type V Collagen Regulates Nascent Matrix Templating And Cell-mediated Reorganization Of Embryonic Matrix

Neil Patel; Meghan Kupratis; Karen Xu; Thomas Li; Eiki Koyama; Nathaniel Dymont; Robert Mauck; Lin Han

Poster No. 1249

Deciphering Avascular Tissue Regeneration In The Human Knee Meniscus Via In Vitro Models

John C. Bradford; Susana P. Simmonds Bohorquez; Katherine L. Meinhold; Ronald Kwon; Jenny L. Robinson

Poster No. 1250

Unraveling The Biomechanical Consequences: The Influence Of Lateral Meniscus Horizontal Cleavage Tears On ACL Stress

Katherine Elbert; Angela Hussain; Jason Koh; Farid Amirouche

Poster No. 1251

Anterior Displacement Of Lateral Meniscus Posterior Horn: A Cadaveric Biomechanical Study

Kazushi Horita; Kamiya Tomoaki; Hamaoka Koudai; Mori Yuta; Shiwaku Kousuke; Atsushi Teramoto; Okada Yohei; Ikeda Yasutoshi

Poster No. 1252

Weight Bearing Ct Shows Altered Tibiofemoral Loading Following Combined Acl Reconstruction And Meniscus Treatment

Travis B. Zhang

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-098 Meniscus - Treatment and Therapeutics

Poster No. 1253

Determining The Mechanisms Of Blood-derived Mononuclear Cell-mediated Meniscus Catabolism

Allison C. Robinson; Maureane Hoffman; Amy L. McNulty

Poster No. 1254

Investigating The Effect Of Cellular Augmentation On The Metabolic And Mechanical Properties Of Frozen Meniscus Allografts

Katherine Lydon; Jasmijn Korpershoek; Caroline Struijk; Christopher Nagelli; Aaron Krych; Daniel Saris

Poster No. 1255

Biomechanical Study Comparing Hybrid To All-inside And Inside-out Repair Constructs For Bucket-handle Meniscus Tears

Laura Snyder; Manuel Schubert; John Sharge; Audrey Moffat; Nicolas Featherstone; Marc Kasabasic; Yawen Li; Chaoyang Chen; Todd Frush

Poster No. 1256

Tibiofemoral Load Sharing And Lateral Meniscus Function After Type 3 Lateral Meniscus Oblique Radial Tear Treatment: Tibia-based Suture Anchor Repair, Capsular-based Repair, And Debridement

Justin FM Hollenbeck; Tyler Uppstrom; Taylor K. Calibo; Colin Murphy; Tyler Perleberg; Mark Cinque; Jason Sidrak; Jonathan A. Godin; Matthew T. Provencher

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Room #: Hall A

PS2-099 Hip - Diagnostics

Poster No. 1257

Prevalence Of Osteoporosis And Preoperative Screening Using X-ray Indices In Female Patients Undergoing Total Hip Arthroplasty

Ryo Higuchi; Keisuke Uemura; Tomoki Asano; Sotaro Kono; Hirokazu Mae; Tetsuro Tani; Kazuma Takashima; Seiji Okada; Hidetoshi Hamada

Poster No. 1258

Development And Accuracy Validation Of A Real-time Ai-assisted Ultrasound Diagnostic System For Developmental Dysplasia Of The Hip

Yusuke Ohashi; Tomohiro Shimizu; Hotaka Ishizu; Katsuhisa Yamada; Daisuke Takahashi; Norimasa Iwasaki

Poster No. 1259

MRI Assessment Of Piriformis Muscle And Sciatic Foramen Dimensions In Piriformis Syndrome

Joshua S. Everhart; Joshua T. Finerty; Jared A. Zanolli; Jason M. Crary; Allison R. Garden; Nicholas R. Kossoff; Manuel A. Romero Padron; Andrea ME Palazzolo Ray; Carli S. Cahill

Poster No. 1260

Validation of MRI- and CT-based Finite Element Modeling of the Proximal Femur Under Sideways Fall

Benjamin D. Olowu; Joshua D. Auger; Elise F. Morgan

Monday, March 30, 2026

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PS2-100 Hip - Injury and Healing

Poster No. 1261

Impact Of Acetabular Labral Tear Location On Patient-reported Outcomes And Conversion To Total Hip Arthroplasty Following Hip Arthroscopy With An 8-year Minimum Follow-up

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

Poster No. 1262

Comparison Of Posterior Wall Acetabulum Fracture Stabilization Methods: A Biomechanical Study

Loren Latta; Abeer Al-Barghouthi; Gabi Schwartz; Francesco Travascio; John Morellato

Poster No. 1263

Reduced Viability And Diminished Osteogenic Responsiveness Of Hsacs In Necrotic Areas Of Onfh

Chao Ma; Simon Chow; Charles Chan; Henry Goodnough; Stuart Goodman

Poster No. 1264

Outcomes Following Hip Arthroscopy In Patients With Femoral Head Cartilage Damage: A Matched Cohort Study

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

Poster No. 1265

The Impact Of Self-reported Cannabis Use On Functional Outcomes After Hip Arthroscopy: A Matched-controlled Study

Brandon J. Allen; Jeffrey S. Mun; Srish S. Chenna; Rachel L. Poutre; Stephen M. Gillinov; Bilal S. Siddiq; Nathan J. Cherian; Christopher T. Eberlin; Jackson G. Woodrow; Rishi P. Earla; Scott D. Martin

Poster No. 1266

Relationship Between Patient Mental Health And Hip Arthroscopy Outcomes

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

Poster No. 1267

Objective Assessment Of Functional Recovery After Hip Preservation Surgery: Use Of A Novel Cell-phone Application To Collect Gait Metrics

Aaron Blom; John C. Wheelwright; Yumeng Gao; Robert Westermann; Michael Willey

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-101 Hip - Structure, Function and Mechanics

Poster No. 1268

Combined Version Strongly Predicts Femoral Head Coverage Greater Than Femoral Or Acetabular Version Alone In Hip Dysplasia

David Liu; Miles Batty; Mahdi Aghaalkhani; Shanika de Silva; Tara Kirchman; Travis Matheney; Michael Millis; Young-Jo Kim; Mohammadreza Movahhedi; Ata M. Kiapour

Poster No. 1269

Hip Joint Kinetics And Kinematics Are Altered In Symptomatic Femoroacetabular Impingement

Brooklyn Vargas; Seth Kussow; Lindsay Schuring; Rich Lisonbee; Jared Zitnay; Tyler Adamson; Michael Harris; Niccolo Fiorentino; Bo Foreman; Andrew Anderson; Scott Uhlrich

Poster No. 1270

Differences In Joint Contact Stresses Due To Osteochondroplasty To Correct Femoral Head-neck Offset Deformity At The Time Of Periacetabular Osteotomy Are Minimal During Simulated Walking

Dominic J.L. Rivas; Michael C. Willey; Wyatt Sailer; Ashley Kochuyt; Holly D. Aitken; Robert Westermann; John Clohisy; Jessica E. Goetz

Poster No. 1271

Epiphyseal Tubercle Morphology Is Similar In SCFE And Cam-type FAI: Evidence For A Shared Morphological Precursor?

David Liu; Mahdi Aghaalkhani; Shanika de Silva; Yi-Meng Yen; Young-Jo Kim; Mohammadreza Movahhedi; Ata M. Kiapour

Poster No. 1272

Estimating Hip Contact Pressure During Walking Before And After Transfemoral Bone-anchored Limb Implantation Using Subject-specific Musculoskeletal Models

Mitchell A. Ekdahl; Cory L. Christiansen; Jason W. Stoneback; Brecca MM Gaffney

Poster No. 1273

MRI Vs CT For Acetabular And Femoral Morphology In The Diagnosis And Surgical Planning For Acetabular Dysplasia

David Liu; Miles Batty; Mahdi Aghaalkhani; Freya Gupta; Shanika De silva; Young-Jo Kim; Mohammadreza Movahhedi; Ata M. Kiapour

Poster No. 1274

Multi-material 3d-printed Hip Joint Model With Labral Seal For Surgical Planning

Paul Beale; Firas Baklouti; Ariane Parisien; Gerd Melkus; Kawan Rakhra; Andrew Speirs; Thomas Uchida

Poster No. 1275

Reliability Study For Assessing Proximal Femur Shape Variations In Cam-Type FAI With Statistical Shape Modeling

Siri Harish; Steven Mell; Jorge Chahla; Shane J. Nho; Catherine Yuh

Poster No. 1276

Sit-to-stand Biomechanics In Pre-operative Cam-type Fai: Comparison With Healthy Controls

Paul Beale; Ariane Parisien; Patrick Ippersiel; Andrew Tucker; Andrew Speirs; Mario Lamontagne

Monday, March 30, 2026

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Room #: Hall A

PS2-102 Hip - Surgical and Non-Surgical Interventions

Poster No. 1277

Acetabular Augments Using Locking Screws For Extensive Acetabular Bone Loss In Complex And Revision Total Hip Arthroplasty: A Series Of 25 Patients

Nathanael D. Heckmann; Pranit Kumaran; Sahil Telang; Ani Mazmanian; Elan Karlin; Ryan C. Palmer

Poster No. 1278

Aspirin Is Associated With A Lower Risk Of Bleeding Complications Than Enoxaparin In Aseptic Revision Total Hip Arthroplasty Patients

Arjun Aron; Matthew Lim; Sahil Telang; Pranit Kumaran; Ryan C. Palmer; Sagar Telang; Jay R. Lieberman; Nathanael D. Heckmann

Poster No. 1279

Intertrochanteric Fractures: Patients With Conversion To Arthroplasty From Failed Intramedullary Nailing Have Higher Rates Of Periprosthetic Infection And Revision Surgery Compared To Primary Arthroplasty

Kwan J. Park; Kevin Credille; Justin O. Aflatooni; Thomas C. Sullivan; Timothy S. Brown; Stephen J. Incavo

Poster No. 1280

Most Hip Arthroscopy Patients Report Resolution Of Mechanical Symptoms At Two Year Follow-up

Rachel L. Poutre; Jeffrey Mun; Srish Chenna; Brandon Allen; Stephen Gillinov; Bilal Siddiq; Jackson Woodrow; Rishi Earla; Scott D. Martin

Poster No. 1281

Endoscopic Iliotibial Band Lengthening And Bursectomy Effectively Improves Pain And Function In Patients With Greater Trochanteric Pain Syndrome

Ashlyn A. Callan; Harrison Volaski; Brandon Boyd; Yungtai Lo; Ferdinand J. Chan

Poster No. 1282

Hip Capsule Thickness: Association With Outcomes After Hip Arthroscopy

Srish Chenna; Jeffrey Mun; Brandon Allen; Rachel Poutre; Jones Badreldin; Stephen Gillinov; Bilal Siddiq; Jackson Woodrow; Frank Simeone; Rishi Earla; Scott Martin

Poster No. 1283

How Does The Achievement Of Minimal Clinically Important Difference, Substantial Clinical Benefit, And Patient-acceptable Symptom State Change Over Time Following Periacetabular Osteotomy?

Zachary A. Trotzky; Cassidy E. Owens; Olivia M. Jochl; Sophie R. Merckaert; Ernest L. Sink

Poster No. 1284

Superior Gluteal Artery Injury In Percutaneous Superior Ramus Stabilization

Adarsh Suresh; Christian Falgons; Stephen J. Warner; Patrick J. Kellam; Milton L. Chip Routt, Jr; Jonathan G. Eastman

Poster No. 1285

Femoral Head-Neck Junction Over-resection Causes Intra-Articular Labral Deflection: An Ultrasound-Based Study

Justin FM Hollenbeck; Joseph Featherall; Taylor K. Calibo; Nick Phelan; Colin Smith; Jonathan A. Godin; Marc J. Philippon

Poster No. 1286

Recovery Trajectory And Patient-specific Predictors Following Periacetabular Osteotomy: A 24-month Prospective Study

Paul Beaulé; Vincent Leopold; Ariane Parisien; Stéphane Poitras; John Clohisy; Ira Zaltz; Michael Stover; Étienne Belzile

Poster No. 1287

A Biomechanical Comparison Of Suture Configurations For Proximal Hamstring Tendon Repair

Taylor Calibo; Joseph Featherall; Madeline Blankenship; Tyler Perleberg; Justin FM Hollenbeck; Abigail Zadorozny; Onur Hapa; Marc J. Philippon

Poster No. 1288

How Minimizing Calcar Tip To Apex Distance (CaTAD) Keeps You Moving: A Retrospective Analysis Of Patient Outcomes At A Single Center Institution

Anna King; Christopher Evaristo; Aaron Lee; Uche Oparaji; Sterling Kneedler; John Hagedorn

Poster No. 1289

A Biomechanical Comparison Of Gluteus Medius Repair With And Without Iliotibial Band Augmentation

Tyler Perleberg; Joseph Featherall; Justin FM Hollenbeck; Taylor Calibo; Madeline Blankenship; Onur Hapa; Charles C. Lin; Marc Philippon

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-103 Tumors - Genetics

Poster No. 1290

Col6a1 Promotes Slow-cycling Cell Characteristics In Ewing Sarcoma: Suppressing Proliferation And Migration While Enhancing Survival Capacity

Yuta Nakamatsu; Naomasa Fukase; Shuichi Fujiwara; Toshiyuki Takemori; Shunsuke Yahiro; Hitomi Hara; Ryoko Sawada; Michiyo Koyanagi-Aoi; Toshihiro Akisue; Takashi Aoi; Ryosuke Kuroda

Poster No. 1291

Spatial Transcriptomic Delineation Of Human Chondroblastoma: Cellular Architecture And Lineage Dynamics

Donghao Gan; Will Jiang; Hao Wu; Francis Lee

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-104 Tumors - Metastatic

Poster No. 1292

Dorsomorphin Inhibits Osteosarcoma Cell Metastasis By Suppressing BHLHE41 Via The Src, JNK, And P38 Pathways

Ko-Hsiu Lu; Chia-Hsuan Chou; Ya-Chi Lin; Shun-Fa Yang

Poster No. 1293

Bidirectional Crosstalk Of Resident Bone Cells And Metastatic Prostate Cancer

Maxwell A. Tracy; Kristina V. Wells; Damian C. Genetos

Poster No. 1294

Osteoblasts Adopt A Reversible, Non-Mineralizing Phenotype Induced By Breast Cancer Secreted Factors

Sarah Nano; Yoselis Marrero; Julian Najera; Vatsal Kumar; Meenal Datta; Laurie E. Littlepage; Laoise McNamara; Glen Niebur

Poster No. 1295

Engineering 3d Collagen-nanohydroxyapatite Coculture Platforms To Uncover Drivers Of Prostate Cancer Bone Metastasis

Caroline M. Curtin; Aamir Hameed; Ciara M. Murphy; Nezar Kamal

Poster No. 1296

Targeting Senescent Breast Cancer Cells With Senolytics To Prevent Metastatic Spine Disease

Eleane C.B. Hamburger; Saber Ghazizadeh; Lisbet Haglund; Derek Rosenzweig

Poster No. 1297

Low Survival Rates For Patients With Tumor Thrombus In Sarcoma

Annika Myers; Abigail N. Padilla; Adrian Lin; Brandon Gettleman; Michael Colello; Bruce Pawel; Alexander Christ

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-105 Tumors - Primary Tumors

Poster No. 1298

From Scalpel To Slide: The Impact Of Air Exposure And Histologic Processing On Surgical Margin Assessment In A Murine Model

Camren S. Toole; Anoushka Poduval; Johanna Koothur; Anuradha V. Kambrath; Laura M. Warmke; Daniel Wurtz; Christopher D. Collier

Poster No. 1299

Withdrawn

Poster No. 1300

High Recurrence Rates Of Osteoid Osteoma Treated With Open Surgery

Annika Myers; Adrian Lin; Brandon Gettleman; Abigail Padilla; Kian Jeshion-Nelson; Bruce Pawel; Tishya Wren; Vernon Tolo; Alexander Christ

Poster No. 1301

Recurrence Of GCT Based On Adjuvant Use

Adrian Lin; Annika Myers; Brandon Gettleman; Abigail Padilla; Michael Colello; Bruce Pawel; Tishya Wren; Vernon Tolo; Alexander Christ

Poster No. 1302

Association Of Tertiary Lymphoid Structure Presence And Tumor Infiltrating Leukocytes In Primary Bone Tumors

Maithily Diaz; Grant Eilers; Antoine Bougoüin; Melissa Zimel; Varun Monga; Kiauntee Murray; Rosanna Wustrack

Poster No. 1303

Impacts Of Social Determinants Of Health On Disease Burden At Initial Presentation And Clinical Outcomes In Patients With Primary Musculoskeletal Cancers

Ryan X. Lam; Lindsey Turner; Zhi Mei Sonia He; Maggie Wang; Aruni Areti; Caroline Keller; Fatima Mubarak; Lorenzo Deveza

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-106 Tumors - Treatment and Therapeutics

Poster No. 1304

A Study Of Abscopal Effect For Malignant Bone And Soft Tissue Tumors Focusing On Macrophage And Cryotherapy

Kenta Nakata; Kunihiro Asanuma; Hironori Date; Takuma Nishimura; Yuki Tanemura; Yumi Matsuyama; Tomohito Hagi; Tomoki Nakamura; Masahiro Hasegawa

Poster No. 1305

Extinction Therapy Approach For Osteosarcoma Using Evolutionary Principles And Collateral Sensitivities

Katelyn E. Parsons; Maggie Hoey; Samantha Morales; Jason Somarelli; Laurie Graves; William Eward

Poster No. 1306

Targeting Prostate Cancer Senescence In 3d Models Of Spinal Metastases

Mansoureh Mohseni Garakani; Lisbet Haglund; Derek Rosenzweig

Poster No. 1307

A Murine Model Of Metastatic Kidney Cancer To Bone Demonstrates Muscle Wasting, Bone Loss, And IL-6/JAK/STAT3 Pathway Activation In Muscle

Anurahda V. Kambrath; Anoushka Poduval; Johanna Koothur; Daniel Wurtz; Teresa A. Zimmers; Christopher D. Collier

Poster No. 1308

Development Of A Sacral Tumor Outcomes Survey For Validity, Clinical Use, And The Value Of Patient Comments

Gage Olson; Ghazal Shabestanipour; Hamid Ghaednia; Anne Fiore; Franklin Sim; Peter Rose; Daniel Tobert; Joseph Schwab

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-107 Clinical Research - Big Data Research

Poster No. 1309

Case Volume & Economic Burden Of Revision Arthroplasty For Hip Aseptic Loosening

Vivek Pisharody; Grayson Nour; Ashish Chowdary; Greg Erens; Jacob Wilson; Ajay Premkumar

Poster No. 1310

Comparative Outcomes Of Robotic-assisted Vs. Conventional Revision Knee Arthroplasty: A Propensity-matched Analysis

Majd Mzeihem; Ali Rteil; Omar Martini; Yasser R. Farid; Hristo Pipunov; Lalit Puri; Farid Amirouche

Poster No. 1311

Withdrawn

Poster No. 1312

Research Trends Versus Procedural Output For Common Upper Extremity Pathologies

Peter Chebi; Majd Mzeihem; Etienne Flamant; Mark Gonzalez; Robert Gray

Poster No. 1313

Differential Outcomes Of Distal Radius Fractures In Hepatitis C Patients Taking Direct Acting Antivirals

Majd Mzeihem; Peter Chebi; John Alvarez; Etienne Flamant; Makenna Isley; Alfonso Mejia; Mark H. Gonzalez

Poster No. 1314

Operating Room Size Does Not Affect Periprosthetic Joint Infection Risk For Primary Hip And Knee Arthroplasty

Scott LaValva; Andrew L. Thomson; Patricia Friedmann; Michael Parides; Alberto V. Carli

Poster No. 1315

Sex-specific Outcomes In Adolescent Acl Reconstruction: A Propensity-matched Cohort Study

Ali Rteil; Rebecca Luft; Jason Koh; Farid Amirouche

Poster No. 1316

Deep Learning Models Show Greater Longitudinal Sensitivity To Cartilage Thickness Change Than Manual Segmentations In Osteoarthritis Initiative Foundation For The National Institutes Of Health Cohort

McKenzie S. White; Anoosha Pai S; Kenneth T. Gao; Valentina Pedoia; Sharmila Majumdar; Gary E. Gold; Akshay S. Chaudhari; Anthony A. Gatti

Poster No. 1317

Impact Of Different Statin Potencies On Bone Health In Patients With Chronic Kidney Disease Stages 3-5

Tien-Ching Lee; Pei-Shan Ho; Ping-Hsun Wu; Yi-Ting Lin

Poster No. 1318

Withdrawn

Poster No. 1319

Automated Femur Geometry Analysis Using Machine Learning In The Context Of Atypical Femoral Fracture

Alyssa Rosen; Ruoyu Xu; Frank Pham; Stephen Falkner; Jonathan Gao; Jayden Yu; Maggie Jiang; Jason Li; Tania Lokesh; Olivia Rosen; Makayla Clark; Jason Xu; Iris Yang; Rashad Madi; Rebecca Willcocks; Ani Ural; Bruce Kneeland; Neil Sheth; Elena Taratuta; Rui Feng; Chamith S. Rajapakse

Poster No. 1320

Disruption Index Analysis Of Shoulder Surgery Literature: Characterizing Patterns In Orthopedic Innovation

Shragvi Balaji; Sameer Khawaja; Corey Hryc; Brenton Jennewine; Michael Cusick; Sai Prasada Rao Manikonda; Kaleb Patterson; T. Bradley Edwards

Poster No. 1321

Withdrawn

Poster No. 1322

Outpatient Anterior Cervical Discectomy And Fusion On The Rise: Changing Economics And Utilization Patterns In U.s. Ambulatory Surgical Centers

Mitchell Ng; Yulia Lee; Leonidas E. Mastrokostas; Paul Mastrokostas; Jonathan Dalton; William Green; Yasmine Eichbaum; Gregorio Baek; Joshua Mathew; Morgan Hitchner; Afshin E. Razi; Alan S. Hilibrand; Alexander R. Vaccaro; Christopher K. Kepler; Gregory Schroeder

Poster No. 1323

A Half-century Of Orthopedic Innovation: A Trend Analysis Of Scientific Disruption In Core Literature

Shragvi Balaji; Sameer Khawaja; Corey Hryc; Brenton Jennewine; Michael Cusick; Kaleb Patterson; Sai Prasada Rao Manikonda; T. Bradley Edwards

Poster No. 1324

Celiac Disease Is Associated With Increased Risk Of Distal Radius Fractures Independent Of Osteoporosis

Chloe S. Alfonso; Katie M. Zehner; Joshua G. Sanchez; Jonathan N. Grauer

Poster No. 1325

Long-term Obstructive Sleep Apnea May Lead To Postoperative Complications Following Carpometacarpal Joint Arthroplasty: A Propensity Matched Analysis

Sehajvir Singh; Priyank Patel; Wali Pirzada; Simran Shamith; Kimberly Dong; Asif M. Ilyas

Poster No. 1326

Withdrawn

Poster No. 1327

Quantification Of The Four-stage Balance Test Using Plantar Pressure Map And Acoustic Wearables

Amirhossein Yazdkhasti; Isabel Hansmann Cañas; Helen Najjar; Gage Olson; Ghazal Shabestanipour; Hamid Ghaednia; Joseph Schwab

Poster No. 1328

Epidemiological Analysis Of Upper Extremity Pediatric Multifracture From 2004-2023

Vijay Subramanian; Priya Marella; Alice Chu; Aleksandra McGrath

Poster No. 1329

Uncovering Surgical Trajectories In Pediatric Lower Extremity Care Using NLP On Clinical Notes

Nazgol Tavabi; Nishita Kalepalli; Timothy Williamson; Ata Kiapour

Poster No. 1330

Systemic Hormonal Contraceptive Use Is Associated With Greater Odds Of Shoulder Pathologies: A Propensity Matched Epidemiological Study

Argen Omurzakov; Arsen Omurzakov; Robert J. Burkhart; Aakash Shah; James E. Voos; Jacob Calcei; John M. Apostolakos

Poster No. 1331

Use Of The NSQIP Database In Orthopedic Trauma Research On Fractures: A Bibliometric Analysis

Uriel Rubinovich; Achint Thakur; Matthew Calderon; Mahir Siddiqui; Charlotte Lenz; Sophia Wang; Meir Marmor

Poster No. 1332

Predicting The Risk Of Rotator Cuff Tear Using Bayesian Networks

Bangyi Yuan; Yibin Liu; Jinjin Ma

Poster No. 1333

Obstructive Sleep Apnea Is Associated With An Increased Risk Of Medical And Surgical Complications After Total Shoulder Arthroplasty: A Systematic Review And Meta-analysis

Bryan T. Soth; Spencer M. Lee-Rey; Harry Haran; Kyle N. Kunze; Christopher M. Brusalis; Samuel A. Taylor; David M. Dines; Lawrence V. Gulotta; Michael C. Fu

Poster No. 1334

Patterns Of Physical Therapy Utilization Following Anterior Lumbar Interbody Fusion

Natalie M. Kistler; William J. Karakash; Maya Abu-Zahra; Henry Avetisian; Chimere O. Ezuma; Aidan Lindgren; Daniel Rusu; Ram K. Alluri; Zorica Buser; Justin M. Lantz

Poster No. 1335

Medicare's Tunnel Vision: The Influence Of Private Equity On The Utilization Of Carpal Tunnel Release And Reimbursement

Mohammed Khan; Gurtej Kahlon; Rania Babar; Mohammad R. Chowdhury; Ahmed Manzoor; Mohammed A. Khan; Omar Mohiuddin

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-108 Clinical Research - Clinical Research Methods

Poster No. 1336

Orthopaedic Clinician Scientists In Mexico: A Current Landscape.

Victor Toledo-Infanson; Itzae A. Gutierrez-Hurtado; Aldo Izaguirre

Poster No. 1337

Evaluation Of Correction Loss After Open Wedge Distal Tibial Tuberosity Osteotomy

Naoki Tsuto

Poster No. 1338

Medicare Advantage And Traditional Medicare Patients Have Different PROMs Completion Rates In TKA

Shlok Patel; Khaled Elmenawi; Shujaa Khan; Ignacio Pasqualini; Yuxuan Jin; Anabelle Visperas; Nicholas Scarcella; Viktor Krebs; Robert Molloy; Matthew Deren; Nicolas S PiuZZi

Poster No. 1339

Design And Technical Validation Of A Wearable Device For Monitoring Motion Of The Hyoid Bone And Cartilaginous Throat Structures During Swallowing, Speech, And Breathing

Spencer Peterson; N. Wesley Edwards; Kali J. Power; Jordan Ryan; Matthew Hancock; Richard Kelsey; David T. Fullwood; Ulrike Mitchell; Miriam Cortez-Cooper; Phillip Sechtem; Pamela Barney; John Kriak; Anton Bowden

Poster No. 1340

Patient-perceived Recovery After Posterior Spinal Fusion: Evaluating Minimum Clinically Important Difference (mCID) In Adolescents With Idiopathic Scoliosis

Leila Mehraban Alvandi; Zachariah Samuel; J. Nicholas Charla; Edina Gjonbalaj; Jordan Xavier; Carolyn Rachofsky; Morgan Roche; Priya Singh; Yungtai Lo; Jacob Schulz; Jaime A. Gomez; Eric Fornari

Poster No. 1341

Intraoperative Wound Irrigation In Orthopedic Surgery: A Survey Of Current Understanding And Practice Across The United States

Prodromos Ververeli; Emma Woodmansey; Frank Buttacavoli; Aldo Riesgo; Christopher Bibbo; Nicholas Tedesco; David Rodriguez; Eric A. Leppy; Jonathan A. Danoff; Alberto V. Carli

Poster No. 1342

Feasibility Of Real-time Musical Feedback To Cue Center Of Pressure Shifts In Subjects With Chronic Knee Pain

Luisa Cedin; Camilla Antognini; Christopher Knowlton; Chris Ferrigno; Markus Wimmer

Poster No. 1343

Machine Learning-based Real-time Foot Detection And Anatomical Segmentation from Plantar Pressure Images Using Yolov11 And Weighted U-net Models

Sarvenaz Fatapour; Isabel Hansmann Canas; Ghazal Shabestanipour; Joseph Schwab; Hamid Ghaednia

Poster No. 1344

Exploring Spatial Relationships Of Macroscopic Tissue Degradation And Quantitative Sensory Testing Of The Knee

Hayden J. Good; Michael Strinden; Priya Kulkarni; Folly Patterson; Makalia T. Robinson; Robert Dalton III; Shane Priester; Janak Gaire; Laurel Dalton; Carson P. Gordon; Samira Capote; Muhammad Abbas; Brittany Raymond; Samuel Armington; Konstantin Brnjos; Hernan Prieto; Yenisel Cruz-Almeida; Kyle Allen

Poster No. 1345

Evaluation Of Limb Length Discrepancies Using Manual Measurements Of Mechanical Axis Films

Ryan Jaworski; Luke Bornstein; Zuzanna Janusz; Swathi Venkatesan; Lisa Tamburini; Adam Weaver; Donna M. Pacicca; John F. Drazan

Poster No. 1346

Physician And Patient-reported Pain Tolerance As A Predictor Of Postoperative Pain And Opioid Consumption In Lumbar Fusion Surgery: A Prospective Cohort Study

Marc A. Abdou; William J. Karakash; Henry Avetisian; Daniel Rusu; Aidan Lindgren; Hannah K. Licari; Raymond J. Hah; Jeffrey C. Wang; Ram Alluri

Poster No. 1347

Standardizing Ct-based Clinical Measurements Of The Sacroiliac Joint: Assessment Of A Novel Joint Width Method'S Single-rater Reliability And Variability.

Joshua Tandio; Sarah Mayer; Oluwatodimu Raji; Jeremi Leasure

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-109 Clinical Research - Health Equity

Poster No. 1348

Feasibility Of Implementing Opencap Smartphone-Based Motion Capture Technology To Remotely Assess Musculoskeletal Movement In Patients With Various Orthopedic Disorders

Holly D. Aitken; Joshua B. Holt; Robert W. Westermann; Jacob M. Elkins; Dallas A. Vanorny; Justin T. Crawmer; Eli S. Gregory; Silvana Velasquez-Marin; Cole M. Rich; Jessica E. Goetz

Poster No. 1349

Which Patient Factors Other Than Comorbidities Influence The Choice Between Simultaneous And Staged Bilateral Total Knee Arthroplasty? A Propensity Matched Study Using A National Database

Sina Afzal; Isaiah Freeman; Carlo Mannina; Muhammad Hamza Ilyas; William Sampson; Pengwei Xiao; Zhijun Li; Oh-Jak Kwon; Michelle Shimizu; Margaret Arthur; Hahn Kang; Oh-Joon Kwon; Young-Min Kwon

Poster No. 1350

The Consequences Of Rurality On Body Mass Index And Surgical Outcomes In Patients Undergoing Total Joint Arthroplasty

Andrey Arshava; Victoria C. Tappa; Natalie Glass; Jacob M. Elkins

Poster No. 1351

Lumbar Disc Herniation Patients With Disparities In Social Determinants Of Health Are Less Likely To Receive Lumbar Discectomy

Lucas Y. Kim; Anish Raju; Sebastian Romero; Jonathan N. Grauer; Daniel H. Wiznia

Poster No. 1352

Positive Screening For Social Determinants Of Health Disparities Does Not Lead To Increased Total Joint Arthroplasty Complications

Lucas Kim; Sebastian Romero; Daniel H. Wiznia

Poster No. 1353

Medicare Advantage Enrollees Are Increasing And Demonstrate Distinct Characteristics From Traditional Medicare THA Patients

Shlok Patel; Khaled Elmenawi; Shujaa Khan; Ignacio Pasqualini; Yuxuan Jin; Lakshmi Gudapati; Anabelle Visperas; Glenn Wera; Nicolas S Piuzzi

Poster No. 1354

Trends In Financial Compensation For Academic Sports Medicine Surgeons In The United States

Julian Smith-Voudouris; Katie Zehner; Joshua Sanchez; Mackenzie Norman; Anthony Seddio; Mitchell Ng; Elizabeth Gardner; Jonathan N. Grauer; Arya Varthi

Poster No. 1355

Social Determinants Of Health Drive Delays In Cancer Care: A Retrospective Study In A Safety-net Hospital

Aruni S. Areti; Kaveri Iyengar; Caroline Keller; Dion Birhiray; Lorenzo Deveza

Poster No. 1356

Withdrawn

Poster No. 1357

Correlation Of Social Determinants Of Health Disparities With Outcomes Following Bankart Repair: A Large Database Study

Joshua G. Sanchez; Katie Zehner; Julian Smith-Voudouris; Jay Moran; Jeremy Ansah-Twum; Mitchell Christiansen; Mary K Mulcahey; Jonathan Grauer

Poster No. 1358

The Influence Of Insurance Status On Achievement Of Patient-reported Outcome Thresholds In Anatomic And Reverse Shoulder Arthroplasty

Allyson N. Pfeil; Conor Smith; Caroline Miller; Sayf Elkousy; Michael Cusick; Wame Waggenspack Jr; Corey Hryc; T Bradley Edwards

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-110 Clinical Research - Observational Studies

Poster No. 1359

The Impact Of Obesity And Lymphedema On Peri-incisional Perfusion And Post-operative Outcomes After Primary Total Knee Arthroplasty: An Update

Steven Leary; Victoria C. Tappa; William Sgrignoli; Yumeng Gao; Jacob M. Elkins

Poster No. 1360

Patient-Reported Outcomes Decline Over Time Following Arthroscopic Bankart Repair For Anterior Shoulder Instability

Sahil Dadoo; Ryan T. Lin; Ryan Gilbert; Tyler C. Williams; Andrew Liu; Neel Bhardwaj; Kyle E. Andrade-Bucknor; Shaquille Charles; Pittsburgh Shoulder Institute; Albert Lin

Poster No. 1361

Subluxators And Dislocators Have Similar Recurrence Rates And Patient Reported Outcomes Following Arthroscopic Stabilization Of Anterior Shoulder Instability

Sahil Dadoo; Ryan T. Lin; Tyler C. Williams; Ryan Gilbert; Andrew Liu; Neel Bhardwaj; Kyle E. Andrade-Bucknor; Shaquille Charles; Pittsburgh Shoulder Institute; Albert Lin

Poster No. 1362

Radiographic Evaluation Of The Knee In Community Residents -findings From The Odai Cohort Study-

Tomoki Terada; Akinobu Nishimura; Naoya Ito; Yoshiyuki Senga; Koki Yamazaki; Yohei Naito; Shine Tone; Masahiro Hasegawa

Poster No. 1363

Bone Mineral Density And Static Markers Of Bone Turnover In Patients Undergoing Surgery For Hip Fracture Repair

Jan M. Hughes-Austin; Lauren Claravall; Ronit Katz; Alexandra K. Schwartz; William T. Kent; Paul J. Girard; Deborah M. Kado; Renata C. Pereira; Isidro B. Salusky; Joachim H. Ix

Poster No. 1364

Functional Asymmetries Are Small And Varied In Achilles Tendinopathy: Implications For Clinical Assessment

Stanton Godshall; Devyn Russo; Andy Smith; Ryan T. Pohlig; Karin M Silbernagel; Josh Baxter

Poster No. 1365

Range Of Motion Trajectories After Revision Total Knee Arthroplasty For Stiffness: Early Motion Matters

Jonggu Shin; Daniel Driscoll; Himani Kollli; Allina Nocon; David Mayman; Peter Sculco; Thomas Sculco

Poster No. 1366

Factors Associated With Follow-up Adherence After Traumatic Cervical Spine Fractures

Pradyun Sangineni; Carter Burns; Kaveri Iyengar; Alejandra Marquez; Lorenzo Deveza

Poster No. 1367

Predictors Of Emergency Department Return Within 90 Days Of Operative Management Of Traumatic Spinal Fractures

Carter Burns; Kaveri Iyengar; Pradyun Sangineni; Alejandra Marquez; Lorenzo Deveza

Poster No. 1368

Factors Associated With Loss To Follow-up After Traumatic Thoracolumbar Spine Fracture

Kaveri Iyengar; Pradyun Sangineni; Carter Burns; Alejandra Marquez; Lorenzo Deveza

Poster No. 1369

Effect Of Subcutaneous Tissue Thickness Around The Knee On Postoperative Range Of Motion After Total Knee Arthroplasty

Robin Pelia; Ankush Kecht; Majd Mzeihem; Seth Roge; Peter Chebi; Mark Gonzalez; Samuel Chmell

Poster No. 1370

Examining The Relationship Between Age And Post-operative Range Of Motion In Patients After Total Knee Arthroplasty

Gurjant Sekhon; Laura Shelby Dameron; Carolina Álvarez; Arvind Narayanan; Arvind S. Narayanan; Joe Hart; Ming-Feng Hsueh

Poster No. 1371

Demographics Of Patients Undergoing Surgery For Cervical And Thoracic Spine Trauma

Alejandra Marquez; Kaveri Iyengar; Pradyun Sangineni; Carter Burns; Lorenzo Deveza

Poster No. 1372

Economic Impact And Clinical Benefits Of Intraosseous Injections In Total Knee Arthroplasty

Kwan J. Park; James Lieber; Austin E. Winger; Thomas C. Sullivan; Timothy S. Brown; Terry A. Clyburn; Stephen J. Incavo

Poster No. 1373

Impact Of Upper Extremity Amputation On Mortality In Patients With Peripheral Artery Disease

Seong-Won Kim; Nicholas Bank; Patrick Brown; Stephen Perle; Megan J. Patterson; Reid Draeger

Poster No. 1374

Leg Up Or Letdown? Exploring The Link Between Lower-body Injury And Upper Extremity Injury In MLB Pitchers

Samarth Menta; Logan Locascio; Aaron Sciascia; Eric N. Bowman

Poster No. 1375

Polyethylene, Single- And Complete-component Revision For Arthrofibrosis After Tka Demonstrate Similar Outcomes But High Re-revision Rates

Kwan J. Park; Justin M. Walsh; Anthony Eshareturi; Thomas C. Sullivan; Karen L. Hernandez; Stephen J. Incavo; Timothy S. Brown

Poster No. 1376

Postoperative Outcomes For Concomitant Total Hip Arthroplasty With Abductor Repair

Kwan J. Park; Richard S. Fuld; Thomas C. Sullivan; Katharine Harper; Terry A. Clyburn; Stephen J. Incavo

Poster No. 1377

Utilizing Weight Bearing Ct To Analyze Acl Tunnel Position

Samuel E. Birnbaum; Tyce C. Marquez; Don D. Anderson; Brian R. Wolf; Matthew J. Bollier

Poster No. 1378

Operative Level Influences Reoperation Risk But Not Patient-reported Outcomes In 3-level Anterior Cervical Discectomy And Fusion

Yulia Lee; Mitchell Ng; Chloe Herczeg; Jonathan Dalton; Yasmine Eichbaum; Gregorio Baek; Joshua Mathew; Morgan Hitchner; William Green; Alan Hilibrand; Alexander Vaccaro; Christopher Kepler; Gregory Schroeder

Poster No. 1379

Association Between Social Vulnerability Index And Timing Of Metastases In Patients With Bone Metastases: A Spine Oncology Database Study

Kaveri Iyengar; Caroline Keller; Aruni Areti; Dion Birhiray; Lorenzo Deveza

Poster No. 1380

Withdrawn

Poster No. 1381

Intraoperative And Delayed Cerebrospinal Fluid Leak Occurrence And Commonalities In A Single-surgeon Cohort

Jennifer A. Bowden; Isabella Roque; John R. Edwards

Poster No. 1382

Fear Of Movement Predicts Persistent Strength Deficits After ACL Reconstruction

Faheem Pottayil; Devin Kelly; Kelsey Casadonte; Joe Hart

Poster No. 1383

Withdrawn

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-111 Clinical Research - Omics, Biomarkers Genetics

Poster No. 1384

Single Cell Transcriptional Accessibility Identifies Predictive Chromatin Accessibility Biomarkers In Peripheral Blood Mononuclear Cells Of Knee Osteoarthritis Patients

Aleksander Szymczak; Gabriella Dyson; Montana Barrett; Cindy Brawner; Nicholas Hanebutt; Matlock Jeffries

Poster No. 1385

Collagen X Longitudinal Fracture Biomarker Expression Demonstrates Similar Endochondral Activity In Intra And Extra-articular Fractures

Caellagh D. Catley; Catherine Hutchison; Natasha McKibben; Graham DeKeyser; Dane Brodke; Chelsea Bahney; Zachary Working

Poster No. 1386

Proinflammatory Biomarkers In Synovial Fluid Are Associated With Cartilage Degeneration Progression In Patients With Knee Osteoarthritis Following Hyaluronic Acid Injections - A Pilot Study

Stefan Zbyn; Janet L. Huebner; Jennifer Bullen; Carl S. Winalski; Thomas M. Link; Virginia B. Kraus; Xiaojuan Li

Poster No. 1387

A Candidate Gene Approach To Identify Genetic Variants Associated With Individual Concussion Symptoms During Recovery

Eun Bi Kim; Julie Wilson; Jarrod Ellingson; Harry Smith; Brennen Harding; Quincy Erturk; David R. Howell; Steve Hicks; Patrick M. Carry

Poster No. 1388

Lectin Microarray-Based Glycosylation Profiling And Explainable Machine Learning Reveal Shared Synovial Fluid Osteoarthritis Biomarkers In Humans And Companion Animals

Heidi Reesink; Angelo Peralta; Parisa Raesimakiani; Camila Carballo; Scott Rodeo; Kei Hayashi; Lara Mahal

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-112 Clinical Research - Systematic Review / Meta-analyses

Poster No. 1389

Gluteus Medius Tears In Greater Trochanteric Pain Syndrome: A Systematic Review Of Pathology, Imaging, And Surgical Outcomes

Rahul Kumar; Harlene Kaur; Yuan (Richard) Liu; Dana Hazem; Matthew Allen; Hodrin Kamnang; Stefano Bini

Poster No. 1390

Withdrawn

Poster No. 1391

High Rates Of Spin Bias In Systematic Reviews Regarding Anterior Cervical Discectomy And Fusion Vs Posterior Cervical Foraminotomy

Daniel Rusu; Jadesola Olurin; Aidan Lindgren; Niels Mohty; Marc Abdou; Jeffrey C. Wang; Raymond J. Hah; Ram Alluri

Poster No. 1392

Anterior Cervical Discectomy And Fusion Comorbidity Complication Rates: A Meta-analysis

Vijay Subramanian; Priya Marella; Ashish Kokkula; Michael Vives

Poster No. 1393

Early Wbat Vs Nwb In Nonoperative Jones Fractures: A Review Of Outcomes In Athletic And Non-athletic Groups

Pradyun Sangineni; Anirudh Nimmagadda; Aruni Areti; Govind Nandagopal; Carter Burns; Jack Dawson

Poster No. 1394

Transforming Rotator Cuff Tear Management: An In-depth Review Of Artificial Intelligence's Impact On Imaging And Patient Outcomes

Ali Rteil; Nicholas D'Ambrose; Jason Koh; Farid Amirouche

Poster No. 1395

Can Patient-reported Outcome Measures And/or Spinopelvic Parameters Predict Low Back Pain Subsidence Response After Total Hip Arthroplasty For Hip Osteoarthritis? A Systematic Review And Meta-analysis

Shahabeddin Yazdanpanah; Aidan Foley; Emily Chin; Jonathan Varcados; Erik Hansen; Claudio Diaz Ledezma; Jeannie Bailey

Poster No. 1396

Sports-related Fractures Of The Hand In Pediatrics

Christina Moawad; Samuel Zverev; Philip Spadafora; Sharon Newman; John Gaffney

Poster No. 1397

Comparing The Efficacy Of Minimal Clinically Important Difference Thresholds Using Distribution-based Or Anchor-based Estimations: A Systematic Review And Meta-analysis

Brandon J. Allen; Jackson G. Woodrow; Maya S. Dubrovsky; Rachel L. Poutre; Rishi P. Earla; Jeffrey S. Mun; Stephen M. Gillinov; Bilal S. Siddiq; Nathan J. Cherian; Scott Martin

Poster No. 1398

3D-Printed Titanium Versus Ti-peek Cages In Degenerative Lumbar Tlif: Meta-analysis Of Clinical Outcomes

Youngmin Yu; Thomas Cho; Robert McCullumsmith; Jiayong Liu

Poster No. 1399

Systematic Review Of Clinical Practice Guidelines For Orthopedic Surgical Management Of Traumatic Hip Fractures

Tia K. Shutes; Kaylan Johnson; Emily Blevins; Madeline Shipley; Saurabh Mehta

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Spin Bias In Randomized Controlled Trials Of Intra Articular Platelet Rich Plasma For Knee Osteoarthritis

Nesa Milan; Katherine Woolley; Alex Youn; Kristen Tamsil; Matthew Allen; Nwachuku Kelechi; Andrew Gatto; Zubin Master; Brian Feeley

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Do Long-term Patient-reported Outcome Measures Offer Additional Value Beyond Five Years After Total Shoulder Arthroplasty? A Systematic Review And Meta-analysis

Bryan T. Soth; Spencer M. Lee-Rey; Harry Haran; Shahabeddin Yazdanpanah; Anthony Finocchiaro; Joshua R. Eskew; Caroline Park; Alexander E. White; Samuel A. Taylor; Lawrence V. Gulotta; Michael C. Fu; Christopher M. Brusalis

Poster No. 1402

Identifying The Prevalence Of Decisional Conflict And Decision Regret And Analyzing Qualitative Experiences For Patients Who Have Undergone Extremity Amputation: A Systematic Review And Meta-analysis

Ryan X. Lam; Shragvi Balaji; Joshua Morrow; Bassem Darwish; Dion Birhiray; Carter Burns; Fatima Mubarak; Lorenzo Deveza

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Holistic Medication In Orthopaedic Surgical Settings: A Systematic Review

Himani Kolli; Henry Lee; Allina Nocon; Peter Sculco; Thomas Sculco

Poster No. 1404

Comparative Analysis Of Incidental Dural Tear Rates In Uniportal Versus Biportal Endoscopic Lumbar Surgery

Yusuf Ansari; Rahul Kumar; Dana Hazem; Arwa Jader; Arbaz Momin; Saqib Hasan

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Multi-omics Approaches For Biomarker Discovery In Rotator Cuff Disease: A Systematic Review

Xing Li; Yibin Liu; Rong Zhao; Ziming Zhang; Jichun Li; Kathleen Derwin; Huajun Wang; Chuangxin Lin; Yang Liu; Jinjin Ma

Poster No. 1406

Reduced Range Of Motion And Clinical Outcome Scores Following Reverse Total Shoulder Arthroplasty For Proximal Humerus Fractures Versus Rotator Cuff Arthropathy: A Systematic Review And Meta-analysis

Shahabeddin Yazdanpanah; Bryan T. Soth; Harry Haran; Spencer M. Lee-Rey; Anthony Finocchiaro; Joshua R. Eskew; Caroline Park; Alexander E. White; Samuel A. Taylor; Lawrence V. Gulotta; Michael C. Fu; Christopher M. Brusalis

Poster No. 1407

Comparative Clinical And Radiological Outcomes Of Cervical Disc Arthroplasty At Higher Versus Lower Cervical Regions

Nikhil Sai; Mitchell Ng; William Green; Joshua Mathew; Gregorio Baek; Morgan Hitchner; Jonathan Dalton; Yulia Lee; Yasmine Eichbaum; Alan Hilibrand; Alexander R. Vaccaro; Gregory D. Schroeder; Christopher Kepler

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PS2-113 Hand and Wrist - Biomechanics

Poster No. 1408

Motions Of The Carpal-thumb Kinematic Chain Are Complex And Differ From Both Thumb And Wrist Motion

J J Trey Crisco; Amy Morton; Douglas C. Moore

Poster No. 1409

Sex-difference In Thumb Carpometacarpal Joint Contact Pressure: A Computational Contact Analysis

Sarah C. Deiters; Thomas R. Gardner; Clark T. Hung; Melvin P. Rosenwasser; Gerard A. Ateshian

Poster No. 1410

3D-Printed PLA Radius Models Replicate Cadaveric Flexural Biomechanics

Faraz Asim; Will Hurley; Robert C. Weinschenk; Jose Rodriguez; Wei Li; Richard Samade

Poster No. 1411

Subchondral Bone Density Distribution And Age-related Changes In Thumb Carpometacarpal Joint: A Comparative Analysis In Healthy Subjects

Hiroki Kondo; Satoshi Miyamura; Ryoya Shiode; Tasuku Miyake; Toru Iwahashi; Seiji Okada; Hiroyuki Tanaka; Tsuyoshi Murase; Tsuyoshi Murase; Kunihiro Oka

Poster No. 1412

Is Pinch Strength Correlated With Grip Strength?

Konosuke Yamaguchi; Kunihiro Oka; Shun Miyamoto; Yoshiaki Yamada; Akinobu Kawada; Yumi Hirai Nomura; Kentaro Ono; Yoshio Kaji; Masakazu Ishikawa

Poster No. 1413

Ultrasonic Anchor Repair Of Scapholunate Ligament: A Biomechanical Cadaveric Study

Nick Pilla; Fady Attalla; Gabi Schwartz; Abeer Al-Barghouthi; Liannys Capote; Ashfaq Ahmed; Loren Latta; Elizabeth Ouellette

Poster No. 1414

Differential Effect Of Isolated Fight Bite Injury In Zone V On Finger Motion - Should We Repair Partial Lacerations?

Muturi G. Muriuki; Bianca DiChiaro; Heather K. Yee; Robert M. Havey; Sonya P. Agnew

Poster No. 1415

Evaluation Of Barbed Suture In Side-to-side Tendon Transfer Technique Using A Cadaveric Model

Kelly Jacoby; Jordan Blough; Mei Wang; Patrick Hettigner; Jessica Hanley

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PS2-114 Hand and Wrist - Imaging

Poster No. 1416

Functional Upper Extremity Load-bearing CT Detects Radiocarpal Joint Alterations Following Distal Radius Fracture Repair

Ignacio Garcia Fleury; Dominic Rivas; Jessica E. Goetz; Nicole Watson; Joseph A. Buckwalter V

Poster No. 1417

Ultrasonographic Evaluation Of Nerve Regeneration After An Artificial Nerve Graft For Complete Transection Of The Sciatic Nerve In Rats.

Koshiro Shimbo; Atsushi Yokota; Keitaro Fujino; Yukiko Yoshimura; Shuhei Otsuki

Poster No. 1418

Trends And Outcomes In Ultrasound-Guided Carpal Tunnel Injection

Katie M. Zehner; Andrew Salib; Joshua G. Sanchez; Julian Smith-Voudouris; Jonathan N. Grauer

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PS2-115 Hand and Wrist - Surgical and Therapeutic Innovation

Poster No. 1419

Workers' Compensation Status Is An Independent Risk Factor For Complications Following Distal Radius Fracture Open Reduction Internal Fixation

Sai Prasada Rao K. Manikonda; Kaleb Patterson; Sameer R. Khawaja; Jad Lawand; Shragvi Balaji; Adil S. Ahmed

Poster No. 1420

Trends In Total Wrist Arthroplasty: Medicare Projections Through 2060

Luke B. Schwartz; Alejandro Friedman; Leonidas Mastrokostas; Scott Liu; Katherine Connors; Jennifer Hashem

Poster No. 1421

Advancing Distal Radius Fracture Fixation: Retrospective Comparison Of Dorsal Compression Reduction And Conventional Techniques

Tantien Nguyen; Victor T. Hung; Joshua U. Hancock; Sofia Restrepo; Miguel Diaz; Braden Mattison; James Creighton III

Poster No. 1422

The Association Between Pre-existing Medical Conditions And Trigger Finger Release In A Medically Underserved Region

Blake C. Martin; Manoj Peiris; Michael D. Sander

Poster No. 1423

Endoscopic Vs Open Carpal Tunnel Release In Obese Patients: Complications And Trends In Management

Andrew Salib; Joshua Sanchez; Fortunay Diatta; Katie Zehner; Mohamed Ramy; Victoria Kong; Jonathan Grauer; David Colen

Poster No. 1424

A Geospatial Analysis Of Open And Endoscopic Carpal Tunnel Surgery In The United States

Luke B. Schwartz; Eli Berglas; Aaron Lavi; Paul Mastrokostas; Mark Shimanov; Mitchell Ng

Poster No. 1425

Patient And Injury Characteristics Associated With Distal Biceps Reconstruction Versus Repair

Lamia K. Hauter

Poster No. 1426

Predictors Of Splint Adherence And Outcomes Following Volar Plating Of Distal Radius Fractures

Yehuda Masturov; Sebastian Arango; Jacob Zeitlin; Jason Flynn; Lauren DeTullio; Andrew Miller; Tristan Weir

Poster No. 1427

Outcomes Of Operative Versus Nonoperative Treatment Of Xylazine-associated Necrotic Wounds: A Retrospective Comparison Of Trends And Outcomes

Yehuda Masturov; Jason Flynn; Jacob Zeitlin; Phillip Snodgrass; Arango Sebastian; Adam Strohl; Andrew Miller; Tristan Weir

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Room #: Hall A

PS2-116 Hand and Wrist - Tendon, Ligament and Neuromuscular Disorders

Poster No. 1428

Cb2-agonist Treatment Acts On Peripheral And Central Substance P Signaling To Ameliorate Overuse Injury Of The Hand And Wrist

Parth R. Patel; Brendan Hilliard; Abby Kegg; Khyleisha Caesar; Betsy Kalicharan; Megan Van Der Bas; Frank Liu Chen; Istvan Tamas; Mikhail Kolpakov; Mary Barbe

Poster No. 1429

Re-animation Of The Elderly Deltoid: A Comparison Of Nerve Transfer Outcomes In Patients ≥ 60 And ≤ 40 Years Old

Charles R. Arendale; Madeline Rieker; Bryan Loeffler; Glenn Gaston

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Room #: Hall A

PS2-117 Shoulder and Elbow - Arthroplasty

Poster No. 1430

Sarcopenia And Shoulder Arthroplasty: Does Sarcopenia Influence Outcomes Differently In Anatomical TSA Vs Reverse TSA?

Roma Fe Mabanag; Majd Mzeihem; Ali Rteil; Jason Koh; Farid Amirouche

Poster No. 1431

Geographic Travel Distance Does Not Influence Preoperative Patient Expectations Or Postoperative Clinical Outcomes Following Total Shoulder Arthroplasty: A Comparative Analysis At An Urban, Tertiary Care Center

Bryan T. Soth; Harry Haran; Spencer M. Lee-Rey; Anthony Finocchiaro; Alyssa D. Althoff; Michael C. Fu; Samuel A. Taylor; Joshua S. Dines; Gabriella E. Ode; David M. Dines; Lawrence V. Gulotta; Christopher M. Brusalis

Poster No. 1432

The Relationship Between Native Glenoid Size And Outcomes With Various Baseplate And Glenosphere Sizes After Reverse Total Shoulder Arthroplasty

Hyeongmin Kim; Josie Elwell; Pierre-Henri Flurin; Sean G. Grey; Bradley S. Schoch; Thomas W. Wright; Joseph D. Zuckerman; Christopher P. Roche

Poster No. 1433

Revision Of Failed Arthroplasty To Reverse Shoulder Arthroplasty: A 20-year Institutional Experience

Michael P. Kucharik; Raahil Patel; Christian M. Schmidt II; Logan C. Kolakowski; Taylor Jones; Victor Hung; Kaitlyn N. Christmas; Peter Simon; Mark A. Frankle

Poster No. 1434

The Impact Of Different Commercial Reverse Shoulder Arthroplasty Designs In Extra-Articular Impingement And Range Of Motion: A Computational Study

John P. Liffing; Andreas Kontaxis; Amirhossein Jahandar; Benjamin Wesorick; Jonathan Glenday; Samuel A. Taylor; Christopher Brusalis; Michael Fu; Lawrence V. Gulotta

Poster No. 1435

Hand Dominance Does Not Influence Patient-reported Outcomes Following Anatomic Or Reverse Total Shoulder Arthroplasty: A Retrospective Cohort Study

Bryan T. Soth; Spencer M. Lee-Rey; Harry Haran; Alyssa D. Althoff; Christopher Wilhelm; Anthony Finocchiaro; Samuel A. Taylor; Christopher M. Brusalis; Joshua S. Dines; David M. Dines; Lawrence V. Gulotta; Michael Fu

Poster No. 1436

Balancing Range Of Motion And Joint Stability In Rsa Through Design And Technique

Rodney Summers; Jeff Bischoff; Olivier Verborgt; Philippe Favre

Poster No. 1437

Type Of Lateralization On Reverse Shoulder Arthroplasty Impacts Posterior Deltoid Biomechanics In External Rotation

Ryan Thatcher; Jonathan Glenday; Christopher Brusalis; Samuel Taylor; Lawrence Gulotta; Michael Fu; Andreas Kontaxis

Poster No. 1438

Preoperative Weight Loss Among Morbidly Obese Patients Is Associated With Lower Early Revision Rates Following Shoulder Arthroplasty

Bryan T. Soth; Harry Haran; Spencer M. Lee-Rey; Alexander E. White; Joshua R. Eskew; Anthony Finocchiaro; Mark F. Megerian; Rajiv P. Reddy; Christopher M. Brusalis; Gabriella E. Ode; Joshua S. Dines; David M. Dines; Lawrence V. Gulotta; Michael C. Fu

Poster No. 1439

Association Between The Goutallier Classification And Objective, Image-based Measures Of Fatty Infiltration In The Rotator Cuff

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

Poster No. 1440

Impact Of Intra-operative Joint Loads On Range Of Motion And Patient-reported Outcome Measures After Reverse Total Shoulder Arthroplasty

Josie Elwell; Richard B. Jones; Ari R. Youderian; Christopher Roche

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Multimodal Assessment Of Shoulder Muscle Function Following Reverse And Total Shoulder Arthroplasty

Rabeeh Majidi; Ali Kiapour; Kiriaki J. Rajotte; Edward Clancy; Vahid Entezari; Adam Bowler; Evan Glass; Andrew Jawa

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Withdrawn

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Outcomes In Reverse Total Shoulder Arthroplasty In Patients 55 And 50 Years Old Or Younger

Bryan T. Soth; Spencer M. Lee-Rey; Harry Haran; Anthony Finocchiaro; Miles Miller; Christopher Wilhelm; Samuel A. Taylor; Christopher M. Brusalis; Joshua S. Dines; David M. Dines; Lawrence V. Gulotta; Michael C. Fu

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PS2-118 Shoulder and Elbow - Diagnostics

Poster No. 1444

Development And Validation Of A Deep Learning Model To Identify Proximal Humerus Fracture Features On Radiographs

Maria Cordero-Romero; Xiaofeng Yang; Dane H. Smith; Sarah B. Floyd

Poster No. 1445

Triaging Capability Of Large Language Model Chat GPT 4.1 Mini For Common Shoulder Pathologies

Ryan Lin; Tyler Williams; Charles Patterson; Trevor Lin; Tyler Paras; Jonathan Hughes; Albert Lin

Poster No. 1446

Chatgpt-4.1 Has Potential To Triage & Diagnose Complications Following Common Shoulder Procedures When Appropriately Prompted

Charles J. Patterson

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PS2-119 Shoulder and Elbow - Growth, Development and Aging

Poster No. 1447

Identification Of A New Population Of Mechanosensitive Tnn+ Progenitors To Form Enthesis Fibrocartilage

Hongbin Lu

Poster No. 1448

HRT Decreases The Odds Of Developing Soft Tissue Disorders Of The Shoulder In Post-Menopausal Women

Isha K. Shah; Natasha N. Desai; Jacob G. Calcei; Abigail L. Campbell

Poster No. 1449

Angiotensin 2 Receptor Blockers Suppress Oxidative Stress In Human Rotator Cuff Cells

Shunsaku Takigami; Yutaka Mifune; Atsuyuki Inui; Kohei Yamaura; Issei Shinohara; Masaya Kusunose; Shuya Tanaka; Yutaka Ehara; Shin Osawa; Daiji Nakabayashi; Ryota Wakamatsu; Takanobu Higashi; Ryosuke Kuroda

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PS2-120 Shoulder and Elbow - Injury and Healing

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Recycling Debrided Tissue For The Development Of A Novel Cell Therapy For Rotator Cuff Injuries

Kyndra R. Long; Christopher V. Nagelli; Katherine L. Lydon; Jon D. Barlow; Christopher L. Camp; Daniel BF Saris

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Machine Learning Segments And Classifies Anterior Capsule Subtypes Of The Rat Elbow In MRI

Michael A. David; Vincent Siu; Tillman James; Rebecca Reals; James Quirk; Weijie Gan; Ryan Castile; Ulugbek Kamilov; Spencer Lake

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Low Reliability Found Between Motion Capture Sensors And Standard Goniometry: A Cross-Sectional Analysis

Sophia McMahan; Ryan T. Lin; Matthew Como; Tyler Williams; Adam Popchak; Albert Lin

Poster No. 1453

Resilience Reduces The Impact Of Recurrent Shoulder Instability On Patient-reported Outcomes After Arthroscopic Shoulder Stabilization Surgery

Ryan T. Lin; Bhardwaj Neel; Andrew Liu; Tyler Williams; Abigail Balsan; Ryan Gilbert; Shaquille Charles; Jonathan Hughes; Adam Popchak; Lesniak Bryson; Albert Lin

Poster No. 1454

Self-Removal Of Sling Following Reverse Shoulder Arthroplasty Results In No Difference In Outcomes And Complication Rates: Short-Term Results Of A Prospective, Single-Blinded, Randomized Controlled Trial

Sophia McMahon; Ryan T. Lin; Janina Kaarre; Charles Patterson; Amalie Nash; Jonathan Hughes; Albert Lin

Poster No. 1455

Long-term Outcomes Following Intramedullary Nailing For Proximal Humeral Shaft Fractures

Yehuda Masturov; Nikhik Sai; Andrew Miller; Kenneth Kearns

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PS2-121 Shoulder and Elbow - Structure, Function and Mechanics

Poster No. 1456

Stereo Radiographic Assessment Of Postoperative Kinematics And Impingement Risk In Anatomic And Reverse Total Shoulder Arthroplasty

Brendan M. Curran; Kevin B. Shelburne; Chadd W. Clary; Casey A. Myers

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Glenohumeral Kinematics Throughout Scapular Plane Abduction Are Associated With Scapular Morphology

Rebekah L. Lawrence; Jay D. Keener; Benjamin M. Zmistowski

Poster No. 1458

In Vivo Measurement Of Coracoclavicular Functional Distance During Shoulder Elevation Following Acromioclavicular Joint Reconstruction

Jason M. Konrath; Sydney Wheaton; Alonso Figueroa; James Gregory; Payam Zandiyeh

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Strength Ratio Of Rotator Cuff Transverse Force Couple Is Not Associated With Glenohumeral Joint Contact Path Length In Individuals With Symptomatic Supraspinatus Tears

Jingxuan Wang; Luke T. Mattar; Lidya Canturk; Jumpei Inoue; Mita Lovalekar; Adam J. Popchak; William J. Anderst; Volker Musahl; James J. Irrgang; Richard E. Debski

Poster No. 1460

Stabilizing The Posteriorly Unstable Shoulder: Identifying Engagement Patterns And Thresholds Of Bone Grafting Of Bipolar Lesions

Alex W. Brady; Ayham Jaber; Taylor K. Calibo; Tyler J. Uppstrom; Peter J. Millett; Matthew T. Provencher

Poster No. 1461

Muscle Activation Patterns During Shoulder Elevation Following Acromioclavicular Joint Disruption, Surgical Versus Non-Operative Treatment

Jason M. Konrath; Sydney Wheaton; Alonso Figueroa; James Gregory; Payam Zandiyeh

Poster No. 1462

An Investigation Of The Subacromial Space During Shoulder Elevation Following Surgical Reconstruction Of The Acromioclavicular Joint

Jason M. Konrath; Sydney Wheaton; Alonso Figueroa; James Gregory; Payam Zandiyeh

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PS2-122 Shoulder and Elbow - Surgical and Non-Surgical Interventions

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Clinical Outcomes Of Distal Biceps Tendon Repair Versus Reconstruction With Achilles Allograft

Sebastian Arzayus Dominguez; Lamia Hauter; Isaac Lapite; Omar Nazir; Adam Mirarchi

Poster No. 1464

Effect Of Trimmable Fixation Nail On Acromion Stress Fractures- A Biomechanical Model

Miguel A. Diaz; Ankur Narain; Joshua Hancock; Victor Hung; Peter Simon; Sergio Gutierrez; Brian Badman

Poster No. 1465

Recurrent Instability Following Arthroscopic Bankart Repair Predicts Patient Acceptable Symptom State For Patient Reported Outcomes

Tyler Williams; Ryan Lin; Sahil Dadoo; Ryan Gilbert; Kyle Andrade-Bucknor; Neel Bharadwaj; Andrew Liu; Shaquille Charles; Adam Popchak; Bryson Lesniak; Jonathan Hughes; Albert Lin

Poster No. 1466

In Vivo Functional And Imaging Assessment Of Muscle Quality After Rotator Cuff Tear And Repair In A Rabbit Model

Syeda Batool; Tang Ningfang; Chris Ward; Mohit Gilotra

Poster No. 1467

Predicting Patients Who Will Have Eventual Rotator Cuff Surgery Based On Natural Language Processing Of Shoulder Magnetic Resonance Imaging Scan Reports

Timothy S. Keeley; Ryan Halvorson; Kian Niknam; Katharina Ziegeler; Sharmila Majumdar; Drew Lansdown

Poster No. 1468

Predictors Of Treatment Delays For Pediatric And Adolescent Patients Undergoing Surgery For Bankart Lesions

Timothy S. Keeley; Nicolas Correia; Nirav Pandya

Poster No. 1469

Dual High-strength Sutures In A Cinch-stitch Configuration Is Superior To High-strength Suture Tape: A Biomechanical Comparison Of Suture Configurations For Subscapularis Repairs

Avinesh Agarwalla; Dave T. Huang; Andrew Posner; Bryson Kemler; Orr Limpisvasti; Melodie Metzger

Poster No. 1470

Outcomes Of Achilles Tendon Allograft Reconstruction For Chronic Ruptures Of The Distal Biceps Tendon Using A Two-incision Surgical Technique

Amanda S. Vazquez-Lloret; Mark E. Morrey; Shawn O'Driscoll; Joaquin Sanchez-Sotelo

Poster No. 1471

The Effect Of Greater Tuberosity Decortication (Biogrooves) On Rotator Cuff Fixation: A Biomechanical Study

Taylor K. Calibo; Justin FM Hollenbeck; Tyler Perleberg; Rio Castro; Nate Dickinson; Mikalyn DeFoor; Scott Tashman; Matthew T. Provencher

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PS2-123 Skeletal Muscle - Exercise and Rehabilitation

Poster No. 1472

Impact Of Telerehabilitation On Subjects With Locomotive Syndrome: The Bibai Study

Yoshiaki Kataoka; Asami Nitta; Takuichiro Onuma; Katsuyuki Kawanishi; Kazuki Kondo; Yudai Matsumoto; Yoshihiro Takahashi; Harukazu Tohyama

Poster No. 1473

Muscle Matters In Knee Surgery Rehabilitation: Translational And Clinical Insights Into Fall Risk

Francesco Pegreff; Gabriela Graziani; Laura Saldaña; Maria Tiziana Di Leo; Arcangelo Russo; Jean Calleja-Agius; Nicola Veronese

Poster No. 1474

Investigation Of The Relationship Between Posture And Hip Joint Reaction Force During Jogging

Koki Ouchi; Gang Deng; Go Yamako; Yoshihiro Nakamura; Yoichiro Yamaguchi; Takuya Tajima; Naosuke Kamei

Poster No. 1475

Electrically Stimulated Eccentric Contraction Training For Composite Trauma Recovery

Rebecca L. Sheetz; Preston Shake; Riki Koshimizu; Sara McBride-Gagy; Koyal Garg

Poster No. 1476

Postoperative Physical Therapy Utilization For Cervical Disc Replacement: An Analysis Of Practice Patterns, Predictors, And Comparison To Anterior Cervical Discectomy And Fusion

Daniel Rusu; Aidan Lindgren; William J. Karakash; Henry Avetisian; Marc A. Abdou; Ram K. Alluri; Justin M. Lantz

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PS2-124 Skeletal Muscle - Growth, Development and Aging

Poster No. 1477

Single-cell RNA Aging Clock Reveals Accelerated Biological Aging Of Fibroadipogenic Progenitors In Post-injury Rotator Cuff

Vayun Chugh; Justin Lau; Alex Brown; Xuhui Liu; Brian Feeley

Poster No. 1478

Integrative Stress Response Activation In Aged Label Retaining MuSCs Improves Regeneration

Alexander Brown; Hanzhi Zhang; Xuhui Liu; Brian Feeley; Andrew Brack

Poster No. 1479

Mild Cold Exposure Improves Fibrosis In Aged Mouse Regeneration And Human Fibrogenic Differentiation

Olivia Deantoni; Miguel Lizarraga; Alexander Brown; Xuhui Liu; Brian Feeley

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PS2-125 Skeletal Muscle - Imaging, Treatment and Clinical Outcomes

Poster No. 1480

Baseline Associations Of HR-pQCT Muscle Size With Muscle Function In Older Adults From The Beacon Trial

Nina Z. Heilmann; Joshua R. Stapleton; Eric Zeng; Kristin Cattell; Marjorie J. Howard; Daniel P. Beavers; Christine M. Swanson; Sarah J. Wherry; Kristen M. Beavers; Ashley A. Weaver

Poster No. 1481

Impact Of Symptom Duration On Periarticular Muscle Atrophy And Fatty Degeneration In Patients With Unilateral Hip Osteoarthritis: An Ai-based Imaging Analysis

Takeshi Ogawa; Keisuke Uemura; Ryo Orito; Shoya Abe; Ema Nakahara; Tsuyoshi Koyama; Takayuki Tsuda; Yoshito Otake; Seiji Okada; Wataru Ando

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Room #: Hall A

PS2-126 Skeletal Muscle - Injury and Healing

Poster No. 1482

Effects Of Ultrasound Stimuli On Denervation-induced Gastrocnemius Atrophy: An In-vivo And In-vitro Mouse Model Validation

Nai-Yun Chang; Wei-Ting Lin; Yueh-Chun Huang; Jaw-Lin Wang

Poster No. 1483

Pharmacological Inhibition Of Lymphangiogenesis Impairs Skeletal Muscle Repair

Yangbao Lyu; Haihan Gao; Xin Ma; Jia Jiang

Poster No. 1484

Apolipoprotein E3 Modulates Motor Endplate Formation And Muscle Force

Dominic Barr; Ryan Roberts; James Redden; D. Joshua Cohen; Zvi Schwartz; Michael J. McClure

Poster No. 1485

Dlk1 Is Necessary And Sufficient To Suppress Human Muscle Fatty Infiltration

Steven M. Garcia; Justin Lau; Miguel Lizarraga; Michael R. Davies; Xuhui Liu; Brian Feeley

Poster No. 1486

High Resolution In Situ Analysis Of A Hindlimb Ischemia-Reperfusion Injury Reveals Transcriptional Changes Associated With The Transfer Of Mitochondria From FAPs To Injured Myofibers

Luke Sang; Justin Lau; Hiroyori Fusagawa; Ryan Sadjadi; Matthew Allen; Megan Le; Nesa Milan; Hannah Chi; Xuhui Liu; Brian T. Feeley; Michael Davies

Poster No. 1487

Divergent Roles Of Th2 And Th17 Derived Proteins To Modulate Inflammation And Enhance Muscle Regeneration Post Volumetric Muscle Loss

Avantika Jain; Amelia Ridolfo; Jamshid Tadiwala; Kevin Sekerak; Rebecca Sheetz; Richard DiPaolo; Koyal Garg

Poster No. 1488

A Mouse Model Of Polytrauma Causes Mineral Accumulation In Skeletal Muscle

Sasidhar Uppuganti; Benjamin Asbury; Kurando Utagawa; Court J. Reese; Rachel McKee; Stephanie Moore-Lotridge; Jonathan Schoenecker; Jeffrey Nyman

Poster No. 1489

A Novel Murine Model To Detect The Chronological Progression Of Exercise-Induced Muscle Injury

Alex Youn; Hiroyori Fusagawa; Sankalp Sharma; Hanzhi Zhang; Nesa Milan; Leila Hennessy; Sanvi Sharma; Mia Schraith; Monica Moore; Jarret Weinrich; Xuhui Liu; Brian Feeley

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PS2-127 Skeletal Muscle - Structure, Function, Mechanics and Mechanobiology

Poster No. 1490

Development Of Normative Reference Values For Gait Kinematics And Kinetics Parameters In Yucatan Pigs

Veridiana Nadruz; Darko Stefanovski; Thomas Schaer

Poster No. 1490A

The Influence Of Fascicles And Extracellular Matrix Volume Fraction On Macroscopic Performance Of Skeletal Muscle

Wei Zeng; Johan J. Nunez-Quispe; Danielle R. Gulino

Poster No. 1491

Quantifying Dynamic Muscle Lengths And Moment Arms Of Musculoskeletal Joints Using FEBio Studio: A Demonstration In The Glenohumeral Joint

Breydon Hardy; Steve Maas; Brittany Percin; K. Bo Foreman; Peyton King; Heath Henninger

Poster No. 1492

Dose Dependent Effects Of Intramuscular Botulinum Toxin On Passive Mechanical Properties Of Skeletal Muscle

Albino G. Schifino; Timothy McGinley; Benjamin Binder-Markey

Poster No. 1493

Quantification Of Stretch Reflex Using A Multi-modal Sensing Device: Device Development And Pilot Human Study

Amirhossein Yazdkhasti; Gage Olson; Helen Najjar; Isabel Hansmann Cañas; Rachel Reyes Segura; Ruth Berkun; Shriya Ahir; Carly Yen; Lily Keiderling; Bright Brandan; Kite Ogawa; Miguel Hernandez; Ghazal Shabestanipour; Hamid Ghaednia; Joseph Schwab

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PS2-128 Bone - Diseases and Disorders

Poster No. 1494

The Impact Of Bisphosphonates On The Charcot Foot: A Retrospective Cohort Study

Gyan Narayan; Joshua Wang; Varun Trivedi; Ashwin Vivekananthan; Vinod Panchbhavi

Poster No. 1495

Paget's Disease Of The Spine, A Systematic Review

Kevin Yoon; Chuka Obiofuma; Lancelot Benn; Mark Ehioghae; Jonathan Japa; Gonzalo Del Rio Montesinos; Avi Giladi; Addisu Mesfin

Poster No. 1496

Cyclin-dependent Kinase Inhibitor-1 Deficiency Enhances Bone Destruction In A Mouse Model Of Arthritis

Kensuke Wada; Shinya Hayashi; Tomoyuki Matsumoto; Naoki Nakano; Yuichi Kuroda; Tomoyuki Kamenaga; Masanori Tsubosaka; Akira Saitoh; Takuma Maeda; Shotaro Araki; kohei motono; Toshiki Kitamura; Takuma Hayashi; Ryosuke Kuroda

Poster No. 1497

Digital Wrist Tomosynthesis-based Radiomics Differentiates Patients With And Without Osteoporotic Fracture

Ram N. Yadav; Daniel Oravec; Terra Cushman; Sudhaker D. Rao; Yener Yeni

Poster No. 1498

Progression Of Ossification Variants To Symptomatic Juvenile Osteochondritis Dissecans In Siblings Of Affected Patients

Saumith Bachigari; Theo Nguyen; Karsten Knutsen; Eisa Hedayati; Abdul Wahed Kajabi; Jutta Ellermann

Poster No. 1499

Mek Inhibitor Treatment For Osteofibrous Dysplasia Rasopathy

Aysha B. Khalid; Kristin Denton; Nandina Paria; Meghan Wassell; Sasidhar Uppuganti; Jeffrey Nyman; Robert Hammer; John Ritter; Mylinh Nguyen; David Podeszwa; Laura L. Klesse; Carol Wise; Jonathan Rios

Poster No. 1500

CNN-Based Evaluation Of Wrist Bone Health And Fracture Risk Using Raman Spectroscopy Of The Proximal Phalanx

Anthony Yosick; Mohammad Hosseini; Sadia Afrin; Sophia Turbide; Andrew Berger; Hani Awad

Poster No. 1501

Single-cell RNA Sequencing Of Corticosteroid-induced Osteonecrosis Of The Femoral Head

Arijita Sarkar; Matthew Gallo; Jennifer Bell; Jacob Ball; Cory Mayfield; Julian Wier; Hannah Shelby; Sarah Bergren; Nathanael Heckmann; Denis Evseenko; Jay Lieberman

Poster No. 1502

The Endoplasmic Reticulum Protein Retention Receptor KDELR2 Is Essential For Survival And Proper Collagen Quality In The Skeletal System Of Mice And Zebrafish

Frank Zaucke; Alice Stephan; Hans Martin Pogoda; Maren Dreiner; Simon Troeder; Wilhelm Bloch; Julia Etich; Iris Riedl-Quinkertz; Anja Prohaska; Mirko Rehberg; Oliver Semler; Branko Zevnik; Anja Niehoff; Martin Hammerschmidt

Poster No. 1503

Metacarpal Cortical Index: An Accessible Alternative For Assessing Wrist Bone Health And Fracture Risk

Anthony Yosick; Sophia Turbide; Hani Awad

Poster No. 1504

DV200 Values In Human And Porcine Formalin-fixed Paraffin-Embedded (FFPE) Osteochondral Samples

Alexandra R. Armstrong; Ferenc Toth; Casey Johnson

Poster No. 1505

Epigenetic Silencing Of Ripk3 Augments Human Osteosarcoma Chemoresistance

Christine Mella; Aditya Sharma; Daniel Pettee; Maximilian Brockwell; Steven J. Kuerbitz; Hope C. Ball

Poster No. 1506

Validation Of A Novel Organoid Model Of Osteonecrosis For High-throughput Drug Screening

Max L. Lee; Glen Liao; Yosuke Susuki; Mehmet Sertac Cekuc; Hannes Kern; Takahiro Igei; Kuan-Lin Chen; Simon K. Chow; Qi Gao; Stuart B. Goodman

Poster No. 1507

The Effect Of Tranexamic Acid On The Prevalence Of Heterotopic Ossification In Elbow Trauma Surgery

Michael Farris; Harshvardhan Bollepalli; Paulina Szakiel; Connor Sullivan

Poster No. 1508

Targeted Nanomedicine With Mechanical Interventions In Treating Breast Cancer-induced Osteolysis

Rosa Guerra; George Kramarenko; Tiankuo Chu; Murtaza Wasi; Faysal Haque; Christina Stinger; Ella Cooper; Samantha Izquierdo; Maya Collado; Eric Sterin; Chitran Chowdhury; Mackenzie Scully; Kejian Li; Emily Day; Liyun Wang

Poster No. 1509

Dxa-based Finite Element Analysis Ultra-distal Radius Predicts Osteoporotic Fracture Independently Of Bmd And Tbs

Ram N. Yadav; Daniel Oravec; Hariaka Ileni; Ansh Shah; Sudhaker D. Rao; Neil Dong; Yener N. Yeni

Poster No. 1510

Cholesterol Reduction Limits Obesity-induced Bone Loss Via Phlpp2

Ismael Y. Karkache; Elizabeth K. Vu; Samuel W. Mitchell; Mitchell Shimak; Grant Kim; Barbara Azevedo Machado; Emily Chavez; Kim C. Mansky; Elizabeth Bradley

Poster No. 1511

Insights Into Osteoporosis In Duchenne Muscular Dystrophy: Exploring Intrinsic Differences Between Normal And Dystrophic Osteoclasts

Amelia Hurley-Novatny; Ling Wang; Hongshuai Li

Poster No. 1512

Bone-vascular Microdevice Highlights Importance Of Fluid Flow In Investigating Inflammatory Environments

Sandra J. Stangeland-Molo; Jacqueline H. Cole

Poster No. 1513

Metabolomic Profiling Uncovers A Sex-specific Bone Phenotype In A Pre-clinical Model Of Non-syndromic-autosomal Recessive Intellectual Disability

Gabrielle T. Robinson; Xiaohang Wang; Trevor M. Wentworth; Robert L. Smallwood; Bailey C. Deever; Liang Li; Fayez Safadi

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-129 Bone - Growth, Development and Aging

Poster No. 1514

Aldosterone Inhibits Osteoblast Function Through The Mineralocorticoid Receptor (MR)

Christopher L. Yearwood; Husam Eldin Bensreti; Dima Alhamad; Dylan Taylor; Eric J. Belin de Chantemele; William Hill; Kate Kosmac; Wendy B. Bollag; Carlos Isales; Meghan McGee-Lawrence

Poster No. 1515

Crosstalk Between Glucocorticoid Receptor (GR) And Aryl Hydrocarbon Receptor (AhR) Signaling In Bone

Husam Eldin Bensreti; Dima Alhamad; Shabiha Sultana; Jonathan Paul; Colby Gross; Dylan Taylor; Caihong Dai; Mark W. Hamrick; Wendy B. Bollag; Sadanand Fulzele; William D. Hill; Carlos M. Isales; Meghan E. McGee-Lawrence

Poster No. 1516

Lyvac Mediates Lysosomal Vacuolation Associated With Skeletal Dysplasia

Jinrui Xun; Haoxiang Yang; Jay Xiaojun Tan

Poster No. 1517

Puberty Blockade Via Leuprolide Acetate Delays Bone Mineral Accrual In An Adolescent Rodent Model

Anna K. Jesch; Thomas Niepsuj; David E. Maridas; Jackie A. Fretz; Anthony P. Auger; Joan S. Jorgensen; Walid A. Farhat; Samantha R. Weaver

Poster No. 1518

Comparative Outcomes Of Distraction Osteogenesis And Epiphysiodesis In Pediatric Leg Length Discrepancy: A Systematic Review And Meta-analysis

Michael G. Paluch; Rosenio Medenilla; Jared Garfinkle; Jack Hennen

Poster No. 1519

High-resolution Microct Analysis Of Cortical Bone Porosity And Vascularity In Methylphenidate-treated Rats

Sardar MZ Uddin; Shannon R. Klein; Michael Hadjiargyrou; Panayotis K. Thanos; David E. Komatsu

Poster No. 1520

Regulation Of Fetal Skeletal Development By Maternal Exercise

Christopher J. Panebianco; Maha Essaidi; Brendan Tobin; Rebecca Simmons; Levi Wood; Nathaniel Dymont; Niamh Nowlan; Joel Boerckel

Poster No. 1521

Eccentric Muscle Contraction Increases Trabecular And Cortical Bone Volume In Aged Mice

Jean Kok; Daniel J. Horan; Joshua R. Huot; Alexander Robling

Poster No. 1522

Effects Of Transcutaneous CO₂ Application In A Rat Fracture Model Of Disuse Osteoporosis

Hyuma Kondo; Tomoaki Fukui; Kenichi Sawauchi; Keisuke Oe; Yohei Kumabe; Ryota Nishida; Fnu Jonathan; Genta Fukumoto; Takehiro Konishi; Ryowa Mineo; Ryosuke Kuroda

Poster No. 1523

Osteogenic Effects Of GLP-1RA In The Presence Of LDL And Oxidized LDL

Norbert W. Fernandez; Lyndsay Kluge; Mitchell Kenter; Adil Akkouch

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-130 Bone - Injury and Healing

Poster No. 1524

Macrophages And Apoe: A Promising Target For Enhanced Regeneration In Aged Fracture Healing

Catharine Dietrich; Mingjian Huang; Kristin Molitoris; Gurpreet Baht

Poster No. 1525

Local Fracture Conditions And Circulating Inflammatory Markers Correlate With Host Cell Attachment To Implants

Sarah Romereim; Aatif Jabbar; Matthew Smykowski; Hailey Bennett; Xue Ma; Nicholas Bernthal; Joseph Wenke; Rachel Seymour; Joseph Hsu; Bailey Fearing

Poster No. 1526

Intravenous Iron Regulates Bone Healing In A Mouse Model Of Fracture Induced Iron Deficiency Anemia

Victoria Duke; Cynthia Alcazar; Kaia Matthias; Quin Nguyen; Natasha McKibben; Zachary Working; Nick Willett; Karina Nakayama

Poster No. 1527

Virtual Mechanical Testing To Track Longitudinal Healing Trajectories In Ovine Large Defect Reconstruction

Kylie S. Frew; Madeline Boyes; Thomas Schaer; Hannah L. Dailey

Poster No. 1528

Differential Outcomes Of Distal Radius Fractures In Patients With And Without Hepatitis C

Peter Chebi; Majd Mzeihem; John Alvarez; Etienne Flamant; Makenna Isley; Alfonso Mejia; Mark Gonzalez

Poster No. 1529

Incidence, Risk Factors, And Management Of Pediatric Scaphoid Nonunions: A National Database Study

Katie M. Zehner; Joshua G. Sanchez; Julian Smith-Voudouris; David L. Colen; Andrea Halim; Jonathan N. Grauer

Poster No. 1530

Microfluidic-synthesized Amorphous Calcium Phosphate Nanoparticles Enhance Osteogenesis, Suppress Osteoclastogenesis, And Promote Bone Healing In A Murine Femoral Defect Model

Bei Liu; Hani Awad; Gianna Smolock

Poster No. 1531

Deep Learning Segmentation Of Mice Fracture Callus In Histology Images

Michael A. David; Aaron Tran; Ana Ferreira Ruble; Honey Hendsi

Poster No. 1532

Ccl2 Inhibition Restores Ssc-mediated Fracture Repair In Aged Mice

Chao Ma; Simon Chow; Charles Chan; Stuart Goodman; Henry Goodnough

Poster No. 1533

Influence Of Drilling Parameters On Insertion Torque And Pullout Strength In Medical Screw Testing

Marcus Mohr; Elena Zale

Poster No. 1534

Spectral Flow Cytometry Reveals Dysregulated Local Immune Cell Populations In A Rat Model Of Polytrauma

Tyler Guyer; Dylan Gill; Kaitlyn Link; Lia Strait; Kelly Leguineche; Kelly L. O'Neill; Robert Guldberg

Poster No. 1535

Incidence Of Deep Vein Thrombosis And Pulmonary Embolism Following Pediatric Femoral Shaft Fracture

Daniel H. Cho; Joshua Wang; Neha Jayarajan; Cameron Bowers; Sydney Smith; William M. Weiss

Poster No. 1536

GM-CSF And GM-CSF-induced Dendritic Cells Enhance Fracture Repair By Stimulating The Proliferation Of Pluripotent Stem Cells

Zhenqiang Yao

Poster No. 1537

B Lymphocyte Regulation In Fracture Healing

Katherine Lefferts; Jessica Cottrell

Poster No. 1538

Timing Matters: PR1P-mediated VEGF Stabilization Differentially Regulates Endochondral Ossification And Fracture Healing Outcomes

Prateek Misra; Diana Yeritsyan; Elizabeth Vickery; Maria Virginia Velasquez-Hammerle; Mohammad Javad Shariyate; Amr Al-absi; Shubham Laiwala; Mason Garcia; Kaveh Momenzadeh; Avner Adini; Ara Nazarian

Poster No. 1539

Preoperative Hyponatremia Predicts 30-day Postoperative Complications Following Open Reduction And Internal Fixation For Proximal Humerus Fracture

Ryan Lebens; Gregory Sacks; Yoli Meydan; Bryan Chen; Kenny Ling; Rachel Loyst; Edward Wang

Poster No. 1540

A Murine Osseointegration Approach For Immediate Weight-Bearing Prosthetics: A Pilot Study

Elizabeth Vickery; Mohammad Javad Shariyate; Mason Garcia; Mohammad Khak; Maria Velasquez Hammerle; Ahmad Hedayatzadeh Razavi; Alireza Mirahmadi; Pooja Chainani; Nazanin Nafisi; Prateek Misra; Quinten Kunz; Justin Hyer; John Wixted; Chiara Ghezzi; Andrew Fauth; Ara Nazarian

Poster No. 1541

Time-resolved Omic Profiling Reveals Pro-fibrotic Macrophage Trajectories In High-strain Nonunion

Matthew D. Patrick; Ramkumar T. Annamalai

Poster No. 1542

Compound Bone-muscle Defects In Mice Demonstrate The Utility Of Gelma Foams For Bone Regeneration

Brya G. Matthews; Hitoshi Tanigawa; Evelyn Mollocana Lara; Yuichiro Tamagawa; Jacob Quint; Mohamadmahdi Samandari; Ali Tamayol; Ivo Kalajzic

Poster No. 1543

Muscle-bone Crosstalk: Decellularized Muscle Constructs In A Preclinical Model Of Open Fracture

Augustine Saiz; Tony Baldini; Spencer Bryan; Torben Hilderbrand; Sarah Brashear; Lucas Smith; Ross Wohlgemuth; Thaqif El Khassawna; Håvard Jostein Haugen; Mark Lee; Kent Leach; Maryam Rahmati

Poster No. 1544

Mapping Distal Femur Fracture Displacement Fields And Fixation Plate Deflection With Weightbearing Computed Tomography

Eric D. Thorhauer; William D. Lack; Elmer Vasquez; Joseph Davis; Sam Nelson; Aerie Grantham; Scott Telfer; William R. Ledoux

Monday, March 30, 2026

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Room #: Hall A

PS2-131 Bone - Mechanobiology

Poster No. 1545

Age-dependent Loss Of Osteocyte Dendrites In Human Trabecular Bone

Mia Nie; Rosa Guerra; Xin Lu; Velia Fowler; Liyun Wang

Poster No. 1546

Osteoarthritis-related 3D Microstructural Changes In Tibial And Patellar Groove Subchondral Bone: Bone Volume Increase, Connectivity Density Decrease, And Patellar Groove Perimeter Widening

Timothy Forster; Zachary Weis; Robert Grasso; Linsey Zhao; Avarie Rembert; Esther Moshe; Brian Beatty, PhD

Poster No. 1547

Development Of Simulated Osseointegration To Reduce Age And Sex-based Disparities With In-vitro Orthopedic Biomechanics Research

Logan Shannon; Tara Nagle; Valentin Rodionov; Robb Colbrunn

Poster No. 1548

Computationally Designed 3d-printed Segmental Defect Implant Optimized For Mechanobiologic Performance In Long Bone: Pre-clinical Assessment In A Sheep Model

Ali Kiapour; Mitchell Greenberg; Santiago Lozano-Calderon; Thomas Schaer

Poster No. 1549

Local Delivery Of Yoda1 Improves Bone Quality After Fracture Under Mechanical Unloading In Polytrauma

Hannah Day; Maryam Rahmati; Torben Hilderbrand; Aneesh Satish Bhat; Ak Prathipati; Yu-Yang Lin; Sophie Orr; Thaqif El Khassawna; Håvard Jostein Haugen; Mark Lee; Kent Leach; Blaine Christiansen; Augustine Saiz

Poster No. 1550

Zinc Enrichment And Mechanical Stiffening At The Tidemark As A Biomarker Of Osteoarthritis Progression

Diego Ledezma Salvador; Alireza Hatamifar; Haochen Ci; Yongmei Wang; Alexis Dang; Richard Souza; Galateia Kazakia; Bo Wang; Sunita Ho

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-132 Bone - Structure, Function and Mechanics

Poster No. 1551

Three-dimensional Morphological Characteristics Of The Fourth And Fifth Lumbar Vertebrae And Lumbar Lordosis In Early-stage Lumbar Spondylolysis Using Homologous Modeling

Yuji Yamane; Hajime Toda; Masaki Katayose

Poster No. 1552

Ketogenic Diet Alters The Musculoskeletal And Cardiac Response To Voluntary Wheel Running In Growing Male Mice

Benjamin Osipov; Lucas A. Robison; Alan R. Buxton; Jessica L. Caldwell; Sophie V. Orr; Yu-Yang Lin; Christopher M. Hayden; Natalie Gilmore; Keith Baar; Crystal M. Ripplinger; Blaine A. Christiansen; Gabriela G. Loots

Poster No. 1553

Biomechanical Evaluation Of Partially Threaded, Fully Threaded, And Hybrid Screw Fixation Of Non-displaced Femoral Neck Fractures In A Young Healthy Bone Model

Michael Mancini; Jordan Bauer; Rohan Rajan; Rajendra Singh; Tomer Korabelnikov; Owen Karsmarski; Joshua Namm

Poster No. 1554

Expression Of Human Cancellous Bone Eshelby Tensor

Young June Yoon

Poster No. 1555

The Association Of Sport Participation On Lower Limb Bone Architecture In Children And Adolescents: A Scoping Review And Preliminary Meta-analysis

Kellen T. Krajewski; Jordan J. Cartwright; Ella A. McLaughlin; Christine M. Swanson; Patrick M. Carry; David R. Howell

Poster No. 1556

SerpinA1a Deletion In Aggrecan-expressing Cells Reduced Vertebral Endplate And Tibial Subchondral Bone Volume

Amelia Franchin; Joana I. Almeida; Michelle Gelbs; Nilsson Holguin

Poster No. 1557

Data-driven Multiscale Modeling For Vertebral Trabecular Elasticity

Shengzhi Luan; Yanrong Xiao; Elise Morgan

Poster No. 1558

A Novel Acoustic Emission Technology For Assessing Osseointegration In Bone-Anchored Implants

Ethan J. Snyder; Giselle Henry; Andres Morales-Martínez; Hongjia He; Sabir K. Ismaily; David B. Doherty; Shuyang Han

Poster No. 1559

Bone Water In Human Tibiae With Subcritical Fatigue Damage: Integrating UTE-MRI And FT-NIR Toward New Biomarkers Of Stress Fracture Risk

Cooper N. Rusch; Grant Belush; Glynn Gallaway; Ayishe Jin; Peter Jalaie; Wikum Bandara; Thomas Siegmund; Rachel K. Surowiec

Poster No. 1560

Fundamental Understanding Of Cemented And Uncemented Attachment Of 3d Printed Porous Orthopedic Implants

Caroline M. Alting; Tian Wang; Matthew Pelletier; Max Lloyd; Dan Willis; Mack Walsh; William Walsh; Ken Gall

Poster No. 1561

The Effect Of Reduced Osteopontin Expression On Bone Morphology And Mechanical Properties In A Novel Heterozygous Mouse Model

Shayom Debopadhaya; Samuel Stephen; Bowen Wang; Deepak Vashishth

Poster No. 1562

Effect Of Age, Sex, And Anatomical Site On The Microstructural Abnormality In Human Proximal Femur

Xiaodu Wang; Hossein Akherati; Pengwei Xiao

Poster No. 1563

Site-specific Characteristics Of Bone In Myo9b Deficient Mice

Do-Gyoon Kim; Momoko Karashima; Farah A. Al-Omari; Keiichiro Watanabe; Yong-Hoon Jeong; Zongyang Sun; Beth Lee

Poster No. 1564

Association Between Vitamin D Deficiency And Regional Cortical Thickness In The Distal Radius

Dylan Kruse; Garrett Croley; Christopher Allender; Richard Samade

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Room #: Hall A

PS2-133 Bone - Treatment and Therapeutics

Poster No. 1565

Cellular And Proteomic Characterization Of Cellular Bone Matrix Allografts

Mohammad Shaver; Renaud Sicard; Vanessa Baron; Tim Ganey

Poster No. 1566

Retrospective Comparison Of Zoledronic Acid And Denosumab For Prevention Of Skeletal Related Events In Multiple Myeloma

Euan A. Forrest; Ethan A. Wetzel; Justin J. Kim; Lauren E. Corliss; Zsombor T. Gal; Andrew J. Yee; Ganesh Shankar

Poster No. 1567

Metformin Modulates Early Collagen I And Promotes Osteogenic Maturation In Mouse BMSCs

Arshia C. Shams; Vasyl Pastukh; Jianying Zhang; James Wang

Poster No. 1568

Improving Osseointegration By Local Co - Delivery Of A Novel Prostaglandin Ep4 Agonist And Zoledronic Acid In A Rat Distal Femur Defect Model

Hannes Kern; Xinggui Tian; Robert Gottwald; Michael Gelinsky; Stuart Goodman; Stefan Zwingenberger; Julia Bolte

Poster No. 1569

High-throughput Screening Using A Novel Joint Organoid For Discovery Of disease Modifying Drugs For Osteoarthritis

Qi Gao; Max Lee; Kuan-Lin Chen; Mayu Morita; Chao Ma; Yosuke Susuki; Takahiro Igei; Simon Chow; Joy Wu; Stuart Goodman

Poster No. 1570

Targeting Fak Activation With M64HCL Promotes Osteoclastogenesis And Bone Resorption

Michael DiSabato; Alhussain Ojajm; Ernesto Solorzano; Mitchell Bailey; Shahabeddin Yazdanpanah; Marc Basson; Fayez Safadi

Poster No. 1571

Comparison Of Compressive Forces Generated With Intramedullary Nails Using Standard Compression Screws Versus A Magnetic Compression Device In A Transverse Tibial Fracture Model

Megan Audet; Dave T. Huang; Lauren Turner; Kelsey Bonilla; Geoffrey Marecek; Melodie Metzger

Poster No. 1572

AAV-based Gene Therapy For Endochondral Repair Of Segmental Bone Defects

Erin B. McGlinch; Joseph A. Panos; Marta Santolini; Michael Coenen; Michael A. Barry; Christopher Evans

Poster No. 1573

Bag2-ppary-p16-initiated Senescence Of Stem Cells Promotes Bone Marrow Senescence

Tongying Chen; Fan Yang; Xiaoyun Li; Yunjie Zeng; Ling Qin; Jiankun Xu; Hongxing Huang; Lei Wan

Poster No. 1574

Anticoagulant Use And Postoperative Hematoma Formation For Lower Extremity Fracture Fixation

Andrew Kim; Saqib Rehman; Dilan Prasad; Justin Mathew

Poster No. 1575

μCt Analysis Of Subchondral Bone After Intra-articular Injection Of An Indoleamine 2,3 Dioxygenase-galectin-3 Fusion Protein

Estefania Urrego Hernandez; Amelia R. Adin; Ashleigh Abbott; Michael Strinden; Maya X. Dunn; Arun Wanchoo; Ron June; Benjamin G. Keselowsky; Gregory A. Hudalla; Kyle Allen

Poster No. 1576

Il-3/Il-3 Receptor Contributes To Skeletal Sexual-dimorphism In A Pre-clinical Model For Non-syndromic Autosomal Recessive Intellectual Disability

Gabrielle T. Robinson; Trevor M. Wentworth; Robert L. Smallwood; Kennedy Nkachukwu; Mustafa Houmsse; Trinity A. Kronk; Michael J. DiSabato; Sharon Usip; Fayez Safadi

Monday, March 30, 2026

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Room #: Hall A

PS2-134 Foot and Ankle - Injury and Healing

Poster No. 1577

The Effect Of Ankle Immobilization And Mechanical Loading On Tendon Healing After Achilles Tendon Repair Surgery

Mao Nie; Xinyi Kang; Sai Yu; Xiang-Hua Deng; Xianding Sun

Poster No. 1578

An Experimental Analysis Of The Occurrence, Progression, And Pathological Mechanisms Associated With Achilles Tendinopathy Induced By Hyperuricemia

Mao Nie; Yi Li; Keyu Wei; Weiqian Jiang; Xiang-Hua Deng; Yuexi Mou; Xianding Sun

Poster No. 1579

Metformin Regulates Tendon Stem Cell Division: Mechanistic Insights And Therapeutic Implications For Tendinopathy

Jianying Zhang; Vasyi Pastukh; Liyang Chen; Kentaro Onishi; MaCalus Hogan; James Wang

Poster No. 1580

Definitive Treatment Of Ankle Fractures With External Fixation Is Associated With Adverse 90-day Medical Outcomes Compared To Subsequent Open Reduction And Internal Fixation In Type 2 Diabetic Patients: A Retrospective Cohort Study

Cameron Bowers; Joshua Wang; Carolyn Henein; Philong Nguyen; Margaret A. Goodwin; William M. Weiss

Poster No. 1581

Different M1/M2 Macrophage Activation State Markers Capture Different Cell Populations In A Sciatic Nerve Injury And Repair Model In Mice: Redefining This Classification As A Spectrum

Marcus A.F. Valenta; Amit S. Mohite; Neill Li

Poster No. 1582

Predicting The Clinical Outcomes Of Intraarticular Distal Tibia Fractures Via A Fracture Energy Computation

Laurence G. Bangert; Kevin Dibbern; William Armstrong; Joel D. Stitzel; Ashley A. Weaver; Donald D. Anderson; Caitlyn J. Collins

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-135 Foot and Ankle - Structure, Function & Mechanics

Poster No. 1583

Three-dimensional Distance And Coverage Maps In Pediatric Flatfoot Deformity

Nathan A. Nichols; Nick A. Slavik; Amanda T. Whitaker; Amy L. Lenz; Karen M. Kruger; Kevin N. Dibbern

Poster No. 1584

Tibiotalar And Subtalar Kinematic Analysis Of Asymptomatic Flatfoot During Heel Rise

Tradd M. Rector; Andrew Peterson; Karen Kruger; Amy Lenz

Poster No. 1585

Smartmesh: An Automatic 3d Meshing Algorithm For Tibiotalar Joint FEA

Ronit Avadhuta; Rohan Bagchi; Justin Luk; Deniz Keles; Ivy Lee; Isabella Santarpia; Willem Koenders; Soheil Ashkani-Esfahani

Poster No. 1586

Quantitative Gait Analysis Reveals Reduced Push-off Power And Altered Foot And Ankle Motion In Patients With Neglected Achilles Tendon Rupture

Min Gyu Kyung; Dong Yeon Lee

Poster No. 1587

Differences In Foot Morphology Between Pediatric And Adult Charcot-Marie-Tooth Disease

Melissa R. Requist; Andrew C. Peterson; Erka Muhlrاد; Kristen Carroll; Theresa Hennessey; Russell J. Butterfield; Bopha L. Chrea; Amy L. Lenz

Poster No. 1588

Impact Of Nail Geometry On Calcaneal Purchase Length In Hindfoot Fixation: Curved Vs. Straight

Kas Knutson; Mathew Anderle; Donald R. Hume

Poster No. 1589

Musculoskeletal Morphology And Strength Of The Foot And Ankle In Pediatric Charcot-Marie-Tooth Disease

Melissa R. Requist; Curran Reddy; Andrew C. Peterson; Erka Muhlrاد; Megan Mills; Theresa Hennessey; Kristen Carroll; Russell J. Butterfield; Amy L. Lenz

Poster No. 1590

Effects Of Tibialis Anterior And Posterior Synergy Perturbations On Multi-joint Foot Kinematics At Heel Strike

Niharika B. Pathare; Anthony H. Le; Amy L. Lenz

Monday, March 30, 2026

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Room #: Hall A

PS2-136 Foot and Ankle – Surgical & Non-Surgical Interventions

Poster No. 1591

Patient-Reported Outcomes Following Hallux Valgus Surgery

Elizabeth Cho; Madison Balagtas; Levy Nathan; Nnadozie Ekweariri; Michael Pinzur; Kamran Hamid; Adam Schiff

Poster No. 1592

Predictors Of Surgical Management In Weber B Ankle Fractures With A Radiographically Symmetric Mortise: A Multicenter Evaluation Of Clinical And Imaging-based Decision-making

Rohith K. Ryali; Justin Luk; Nandini Lal; Ali Abouhilal; Amal Chidda; Amgad M. Haleem; John Y. Kwon; Soheil Ashkani-Esfahani; Daniel Guss

Poster No. 1593

Improving Midfoot Fusion Outcomes: The Importance Of Screw Angulation And Insertion Sequence

James Johnson; Leah Buch; Shannon King; Mia Knauf; Joshua Kim; Christopher Gross; Daniel Scott; Samuel Adams; Kenneth Dupont; David Safranski

Poster No. 1594

Fracture-plane Position And Device Type Govern Interfragmentary Compression: A Bench-top Comparison Of Sustained Dynamic Compression, Cannulated Lag, And Variable-pitch Fully-threaded Compression Screws

James Johnson; Leah Buch; Evan Bryan; Samuel Adams; Canon Cornelius; David Safranski

Poster No. 1595

Multi-pass Guide Wire Drilling Reduces Insertion Torque And Initial Compression, While A Sustained Dynamic Compression Construct Preserves Force After Simulated Resorption

James Johnson; Leah Buch; Evan Bryan; Samuel Adams; Canon Cornelius; David Safranski

Poster No. 1596

Accuracy And Precision Of Computer-assisted Surgery Compared With Conventional Instrumentation And Patient Specific Instrumentation For Total Ankle Arthroplasty

Matthew Rueff; Zachary Tupper; Matthew Hamilton; Scott Gulbransen; Phong Diep; Laurent Angibaud; Edward Haupt

Poster No. 1597

Progressive Correction Of Severe Post-traumatic Tibio-tarsal Deformity Using An Ilizarov External Fixator In An Adolescent

Mohamed Anouar Goumri; Mohamed Moussadiq; Imad Abkari; Mohamed Amine Benhima

Poster No. 1598

Physical Function And Pain Trajectories Following Foot And Ankle Surgery In Rheumatoid Arthritis Patients: A Retrospective Observational Study

Tyler Kelly; Payal Gupta; LaMiah Hall; Simon Lalehzarian; Binam Shrestha; Ashish Shah; Lesley E. Jackson; Gerald McGwin; Jeffrey R. Curtis; John Mountz; Kenneth Saag; Hassan Ghomrawi

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Room #: Hall A

PS2-137 Tendon and Ligament - Diseases and Disorders

Poster No. 1599

Inhibitory Effects Of Ginger-derived Extracellular Vesicles On The Heterotopic Ossification Of Achilles Tendon

Tomoyuki Nakasa; Dan Moriwaki; Hiroki Kaneta; Shigeru Miyaki; Nobuo Adachi

Poster No. 1600

Metabolic, Transcriptomic, Functional, And Histological Signatures Of Inflammation After Acl Rupture In A Translational Model Of Ptoa

Ashley M. Potter

Poster No. 1601

A New Mechanistic Insight Into The Pathogenesis Of Achilles Tendinopathy And Heterotopic Ossification By Study Of Human Patients

Haiyin Li; David J. Ciufo; Chike Cao

Poster No. 1602

Characterization Of Glra1 Spasmodic Mouse To Establish A Neuromuscular Contracture Model For Human Neuromuscular Diseases

Haohui Fang; Peter T. Shyu; Giuliana F. Guerriero; X Edward Guo; Alice H. Huang; Varun Arvind

Poster No. 1603

Role Of Endoplasmic Reticulum Stress And The Interaction Between The Endoplasmic Reticulum And Mitochondria In The Development Of Tendinopathy

Mao Nie; Yuexi Mou; Sai Yu; Xiang-Hua Deng; Xianding Sun

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-138 Tendon and Ligament - Growth, Development and Aging

Poster No. 1604

Matrix Assembly Is Guided By The Coordination Of Collagens V And XI During Early Postnatal Development

Nat Thurlow; Jeremy Eekhoff; Meera Ratnagiri; Courtney Nuss; Stephanie Weiss; Nathaniel Dymant; Lou Soslowsky

Poster No. 1605

Mechanical Unloading Via Sciatic Nerve Resection Delays Proliferative And Matrix-driven Achilles Tendon Growth During Early Postnatal Development

Talayah Johnson; Natalie Fogarty; Alisia Lin; Destiny Miller; Madison Dennis; Jiaqi Xiang; Xi Jiang; Lin Han; Robert Mauck; Nathaniel Dymant

Poster No. 1606

Slow Elongation & Rapid Intermittent Cyclic Stretch Differentially And Synergistically Drive Maturation In Engineered Ligaments

Leia D. Troop; Jenny L. Puetzer

Poster No. 1607

Serum Advanced Glycation End Products As Predictors Of In Vivo Patellar Tendon Properties

Eric J. Gutierrez; Matthew Fortino; Shivham H. Patel; Zachary J. Hass; Jacob M. Haus; Chad C. Carroll

Poster No. 1608

Topical Or Injectable Metformin Ameliorates Age-related Degeneration In Mouse Achilles Tendon

Soichi Hattori; Vasyl Pastukh; Jianying Zhang; Satyaj Bhargava; Arshia Shams; Rachit Saggari; Warren Austin; Celina Zhao; James Wang

Poster No. 1609

Muscle Tendon Crosstalk Is An Essential Factor For Postnatal Tendon Growth In Murine

Yuna Usami; Koyo Nogji; Kazuki Nakayama; Michiaki Sato; Ryuichi Sakata; Takanori Kokubun

Poster No. 1610

The Role Of Cx3cr1 In Tendon Development And Response To Loading

Lee Song; Stavros Thomopoulos

Poster No. 1611

Anterior Cruciate Ligament Size Is Associated With Timing Of Puberty Onset In The Skeletally Immature Porcine Knee Joint

Margaret Easson; Jacob Thompson; Sandra Shultz; Lauren Schnabel; Jeffrey Spang; Matthew Fisher

Poster No. 1612

In Vivo Characterization Of Human Fetal Enthesis Cells

Alina Feng; YiYi Liang; Angel Moonilall; Fei Fang

Poster No. 1613

The Distinct Development Of Fibrous And Fibrocartilaginous Entheses

James Y. Chen; Ashley K. Fung; Noriaki Ono; Nathaniel A. Dymant; Stavros Thomopoulos

Poster No. 1614

A Distinct Population Of PTHrP+ Cells Is Associated With The Onset Of Supraspinatus Tendon Enthesis Mineralization

Ashley K. Fung; Noriaki Ono; Nathaniel A. Dymant; Stavros Thomopoulos

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-139 Tendon and Ligament - Injury and Healing

Poster No. 1615

Mustn1 Expression Accompanies Mural Cell Infiltration During Achilles Tendon Repair

Christopher J. Janton; Michael Hadjiargyrou

Poster No. 1616

A Vascularized Tendon Fibrotic Organoid With Microfluidic Perfusion

Victor Z. Zhang; Mariana Rodriguez; William H. Torp; James L. McGrath; Hani A. Awad

Poster No. 1617

Comparison Of Recovery Time Course For Spontaneous Healing Vs Surgical Reconstruction In The Murine ACL Rupture Models

Riku Saito; Yuna Usami; Moe Yoneno; Koyo Nogi; Satoshi Kojima; Takanori Kokubun

Poster No. 1618

Paracrine Senescence Signals Promote Fibrotic Reprogramming In Fibroblasts

Chelsea A. Wu; Claire Desrochers; Elisabeth Landis; Penn Sagedahl; Sandra Passe; Shannon Holmberg; Anne Gingery

Poster No. 1619

Investigating Metabolism And Spatial Mechanics During Regenerative Embryonic Tendon Healing

Divya S. Sivalingam; Christoph D. Hart; Nishanth E. Sunny; Giuliano Scarcelli; Catherine K K. Kuo

Poster No. 1620

Cellular And Matrix Alterations In The Subacromial Bursa In Response To Tendon Injury

Ashley K. Fung; Jillian M. Smith; Beth G. Ashinsky; Stavros Thomopoulos

Poster No. 1621

Muscle Contraction Contributes To The Recovery Of Tendon Length And Mechanical Strength And Is Accompanied By Accelerated Neovascularization /vascular Regression Process After Surgery For Achilles Tendon Rupture.

Moe Yoneno; Michiaki Sato; Takanori Kokubun

Poster No. 1622

Disagreements In Pass Rates Between Strength And Hop Tests In Healthy And Aclr Patients

Abdulaziz Norbekov; Joe Hart; Devin Kelly; Jonathan Davis

Poster No. 1623

Gli1+ Entesis Stem Cell Sheets Enhance Tendon-to-bone Healing

Ismael Bouso; Fred S. Lee; James Y. Chen; Younan Cia; Stavros Thomopoulos; Andrew Luzzi

Poster No. 1624

Cyclical Physiological Strain Blunts TGF- β Induced Myofibroblast Activation In A Human Tendon-on-a-chip

Kyle Jerreld; Hayley Miller; Hani Awad

Poster No. 1625

Combinations Of 3D Tibiofemoral Geometry Are Related To Increased ACL Force In 120 Young, Female Athletes

Isabella Gomez Hjerthen; David Shamritsky; Andrew Pechstein; Mitchell Wheatley; Mark Amirtharaj; Thomas Wickiewicz; Danyal Nawabi; Andrew Pearle; Bruce Beynon; Carl Imhauser

Poster No. 1626

Understanding Lineage Capacity Of Blastema-driven Craniofacial Joint Regeneration

Everett S. Weinstein; Maria Blumenkrantz; Joanna Smeeton

Poster No. 1627

Elucidating Injury-site Specific Regenerative Programs To Rebuild The Tendon

Stephanie L. Tsai; Madison Burke; Marie-Therese Noedl; Bess M. Miller; Hannah Shell; Claudio Macias-Trevino; Mor Grinstein; Jenna L. Galloway

Poster No. 1628

Proteome Composition And Tissue Structural Dynamics During Scar-free Ligament Regeneration In Zebrafish

Katherine A. Spack; Julia Mo; Joanna Smeeton

Poster No. 1629

Timing Of Systemic Hedgehog Agonist Delivery Differentially Modulates Progenitor Proliferation And Fibrocartilage Formation During Tendon-to-bone Healing

Jonathan Marcelin; Rashad Madi; Timur Kamalidinov; Xi Jiang; Andrew Kuntz; Nathaniel Dymont

Poster No. 1630

Type III Collagen Reduction Has Minimal Immunomodulatory Impact In Young Adult Mouse Tendon Healing

Emma E. Kroll; Margaret K. Tamburro; William K. Yen; Jeremy D. Eekhoff; Stephanie N. Weiss; Lou J. Soslowsky; Susan W. Volk

Poster No. 1631

Lineage Tracing Reveals The Plasticity Of Fat Pad Adipocytes In Tendon Healing

Yangbao Lyu; Haihan Gao; Xin Ma; Jia Jiang

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-140 Tendon and Ligament - Structure, Function and Mechanics

Poster No. 1632

Meso-scale Viscoelastic Properties Of Achilles Tendon Matrix Reveal Local Contributions To Tissue Mechanics

Tyler E. Blanch; Yu-Chang Chen; Jonathon L. Blank; Kyle H. Vining; Su Chin Heo

Poster No. 1633

The ACL Sheath Exhibits Synovium-Like Transcriptomic And Functional Signatures, Distinct From The ACL Core

Jack Rogot; McKenzie Sup; Lauren Lisiewski; Ismael Bousso; Mark (Min Kyu) Kim; Roshan Shah; Nadeen Chahine; Christopher S. Ahmad; Stavros Thomopoulos; Clark Hung; Beth Ashinsky

Poster No. 1634

Reduced Hindlimb Loading Following Sciatic Nerve Resection Disrupts Achilles Tendon Mechanics, Cell Density, And Gene Expression In Wild-Type And Tendon-Targeted Collagen XII Knockout Mice

Michael S. DiStefano; Talayah Johnson; Nathaniel Dymont; Lou Soslowsky

Poster No. 1635

Cellular Mechanisms Of Regeneration: Spiny Mouse Tendon-derived Cells Exhibit Greater Metabolic Activity, Rapid Migration, And Distinct Cytoskeletal Organization Relative To Cd1

Mariah Turner; Harrison Broadway; Sebastian Pena; Janak Gaire; Brittany Taylor

Poster No. 1636

Withdrawn

Poster No. 1637

Estrogen Receptor Expression Changes After Puberty In The Skeletally Immature Porcine Anterior Cruciate Ligament

Jacob D. Thompson; Matthew B. Fisher

Poster No. 1638

Regionally Distinct Strain Responses Of The Supraspinatus Tendon To Glenohumeral Elevation And Loading

Aaron Hellem; John Liffbrig; Matthew MacEwen; Richard Evans; Victor Barocas; Rao Allison; Paula Ludewig; Arin Ellingson

Poster No. 1639

Mechanical Loading Modulates The Hemarthrosis Response Of Cultured Human ACL Fibroblasts

Howard J. Nicholson; Sebastián Anderson; Yuchen Liu; Gerard A. Ateshian; Nadeen O. Chahine; Roshan P. Shah; Clark T. Hung

Poster No. 1640

Tendon-Targeted Collagen III Knockdown Minimally Alters Mouse Supraspinatus Tendon Insertion Mechanical Properties

Emma E. Kroll; Jeremy D. Eekhoff; Margaret K. Tamburro; Michael S. DiStefano; Stephanie N. Weiss; Rebecca L. Betts; Susan W. Volk; Lou J. Soslowsky

Poster No. 1641

Anatomic And Flexion-dependent Differences Between The Fibular Collateral Ligament, Anterolateral Ligament, And Iliotibial Band Fibers: Guiding Graft Fixation In Lateral Knee Reconstruction

Adam B. Yanke; Edouard Augustin; Zachary Oppenheim; Jose Vega; Fernando Gomez Verdejo; Alican Koluman; Felipe Casanova; German Escribano; Andrew S. Bi; Jorge Chahla

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-141 Tendon and Ligament - Treatment and Therapeutics

Poster No. 1642

“Sticky” Tenocytes As A Potential Therapeutic Tool For Patellar Tendinopathy

Jay Trivedi; Brett Owens

Poster No. 1643

Ligamentogenic Differentiation Of Human Bone Marrow-derived Stem Cells Under Near Physiological Culture Conditions For Tissue Engineering Applications

Tarek Klaylat; Peter Mounsef; Derek Rosenzweig; Rahul Gawri

Poster No. 1644

Stability Evaluation Of A Novel Glycyrrhizin-metformin Topical Lotion For The Treatment Of Tendinopathy

Elton Dong; Erica Taylor; Celina Zhao; Jianying Zhang; James Wang

Poster No. 1645

Inhibition Of The Nf- κ B Pathway Suppresses Macrophage-induced Inflammatory Response In The Subacromial Bursa In Vitro

Jillian M. Smith; Ashley K. Fung; Stavros Thomopoulos

Poster No. 1646

Tendon-derived Ecm Thermoresponsive Hydrogel To Deliver Itenocytes For Scarless Tendon Healing

Ahmet E. Pazarceviren; Hyeongseop Keum; Minoo Bastani; Benjamin Freedman; Dmitriy Sheyn

Poster No. 1647

Cell Source-specific Extracellular Vesicles Direct Zone-specific MSC Differentiation For Rotator Cuff Entesis Regeneration

Zizhao Li; Catherine Cheung; Lin Xu; Sung-Han Jo; Se-Hwan Lee; Jayden Shin; Felicia Pinto; Ellie MacMullan; Jina Ko; Su Chin Heo

Poster No. 1648

Synergistic Gdf5-ctgf Signaling Drives Efficient, Scalable, And Off-target-free Syndetome To Itenocyte Induction

Ahmet E. Pazarceviren; Minoo Bastani; Melissa Chavez; Julia Sheyn; Dmitriy Sheyn

Poster No. 1649

Characterizing The Effects Of Indirect Histotripsy Treatment On Tendon Structure And Function

Megan Gulian; Elliana Vickers; Blake Bangay; Zoe Miloszewski; Georgina Flynn-Smith; Sheryl Coutermarsh-Ott; Joanne Tuohy; Eli Vlasisavljevich; Vincent Wang

Poster No. 1650

Comparing Prp, Prp-evs, And Platelets For Tendon Repair: An In Vitro Study

Chase A. Bernas; Henintsoa Fanjaniaina Andriamifidy; Sophie A. Weisman; Daniel Grande

Poster No. 1651

Preoperative Testosterone Use Is Associated With Increased Risk Of Revision Surgery Following Achilles Tendon Repair: A Propensity-matched Cohort Study

Joshua Wang; Varun Trivedi; Gyan Narayan; Ashwin Vivekananthan; Keenan Horani; William M. Weiss

Poster No. 1652

Development Of A Minimally Invasive Drug Delivery Platform For The Effective Treatment Of Tendon Injuries

Hua Shen; Moumita Basak; Yin-Yuan Huang; Srikanth Singamaneni

Poster No. 1653

Retrospective Case-series On Pre- And Post-operative Morphine Equivalents Demands In Patients Who Underwent Rotator Cuff Repair Surgery

Carsten P. Schmidt; Vadim Dolgov; Hardeep Tiwana; Miguel Schmitz

Poster No. 1654

Single Posterior Incision Approach To The Repair Of Partial Distal Biceps Ruptures: A Case Series

Yehuda A. Masturov; Thomas Knoedler; Sebastian Arango; Pranav Jain; Jacob Zeitlin; Andrew Miller; Tristan Weir; Kenneth Kearns

Poster No. 1655

Return To Sport Following Operative And Non-operative Treatment Of Proximal Hamstring Tears: A Systematic Review And Meta-analysis

Noah Lyndall; David Dallas-Orr; Tyler Lockwood; Amritpal S. Randhawa; Matthew Frederickson; Shannon Tse; Cassandra A. Lee; Ryan D. Freshman

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-142 Biomaterials - Controlled Release

Poster No. 1656

Emulsion-loaded Alginate And Fibrin Hydrogels Enable Ultrasound-controlled Antibiotic Delivery For Spinal Fusion Infection Prophylaxis

Lauren J. Delaney; Asia Winslow; Mario L. Fabiilli; Sam Varghese; Brian E. Oeffinger; Flemming Forsberg; Noreen J. Hickok; Ziba Ghareh Nazi Fam

Poster No. 1657

Physiologic TGF- β And Glucose Administration Yield Functional Neocartilage While Maintaining Chondrocyte Metabolic Profile

Yifan Peng; Aleksandra Kimball; Henry Brisebois; Matthew D. Layne; Michael Albro

Poster No. 1658

Hybrid Charge-reversed Cationic Exosomes For Advanced Non-viral Gene Therapy In Osteoarthritis

Andrew Selvadoss; Helna Mary Baby; Hengli Zhang; Bill Hakim; Ambika Bajpayee

Poster No. 1659

Localized, On-demand Antibiotic Delivery Using Ultrasound-responsive Alginate With Chitosan Coating For Infection Prevention In Spinal Fusion

Lauren J. Delaney; Asia Winslow; Viren Soni; Gagan Kaushal; Mario L. Fabiilli; Flemming Forsberg; Noreen J. Hickok; Ziba Ghareh Nazi Fam

Poster No. 1660

Delivery Of Mirna Using A Hydrogel And Lipid Nanoparticle System For Bone Regeneration Applications

Thomas W. Jacobs; Ila Hales; David J. Cohen; Zvi Schwartz; Barbara Boyan

Poster No. 1661

Enhanced Transport Mechanics Of Proteoglycan Replacements In Cartilage Through Thermo-responsive Polyelectrolytes

Shalini Sundar; Vidhika S. Damani; Allison Koopman; Qurat-Ul-Ain Bhatti; Zoe A. Fields; Weiran Xie; Jenna L. Averill; Emily Yao; Sri V. Akepati; Arthi Jayaraman; Darrin J. Pochan; Justin Parreno; Laure V. Kayser; Charles Dhong

Poster No. 1662

Therapeutic Effect Of Kartogenin-loaded Nanosomes On Arthritic Chondrocytes

Ryan Qiu; Shona Gordon; James Northcutt; Hongsik Cho

Poster No. 1663

Cationic IL-1RA Provides Sustained Anti-Inflammatory Activity In Human Cartilage Compared To Anakinra

Timothy L. Boyer; Helna Mary Baby; Bill Hakim; Hengli Zhang; Andrew Selvadoss; Uma Sankar; Ryan Porter; Ambika G. Bajpayee

Poster No. 1664

Orthopedic Infection Treatment Using Nanoparticles And Vancomycin Engineering

Zahra Eskandari; Lucy Bowden; Poom Ungolan; Yiwei Yan; Orhun Muratoglu; Ebru Oral

Poster No. 1665

Optimization Of Punicalagin-releasing In Situ Forming Microparticles (PRISM) For Treatment Of Osteoarthritis

Jessica Amaya; Steven Elder

Poster No. 1666

Pre-osteoblast Responses To Tin Ions: A Pathway To Implant Fibrosis

Amandine S. Impergre; Codrin Robu; Jeremy L. Gilbert

Poster No. 1667

Cement Brand, Viscosity, And Mixing Sequence Determine High-dose Vancomycin Elution From Polymethylmethacrylate

Mohammed Hammad; Christina Chao; Mathias Bostrom; Alberto Carli

Poster No. 1668

Study On The Therapeutic Effect Of A Co-delivery System For Curcumin And Catalase In The Treatment Of Knee Osteoarthritis

Bohao Chen

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-143 Biomaterials - Orthopaedic Implant Materials

Poster No. 1669

A Systematic Review Of Biomechanical Experiments On Bioresorbable Suture Anchors

Gyan Narayan; Andrew Powell; William Weiss

Poster No. 1670

Does Synovial Fluid Electrochemical Behavior Change When Exposed To CoCrMo Or Oxidized Zirconium?

William Mihalko; Bailey Bond; Michael Kurtz; Shabnam Aslani; Harrison Smith; Alexia Paxton; Steven Kurtz

Poster No. 1671

Clinical Outcomes Following Intermediate Versus Long Cephalomedullary Nailing For Fixation Of Unstable Intertrochanteric Fractures: A Systematic Review And Meta-analysis

Noah Gonzalez; Cassidy Webber; Jason Den Haese Jr; Jean-Marc Lucas

Poster No. 1672

Development And Application Of Piezoelectric Films For Enhancing Bone Growth

Chia-Chih Chang; Chin-Yu Song; Nai-Yun Chang; Chih-Hao Chang; Jaw-Lin Wang

Poster No. 1672A

Bioabsorbable Implants In Orthopaedics: A Comprehensive Review Of Materials, Innovations, And Clinical Applications

Eddie Geagea; Grant Rivera; Mehdi Razavi; John Lovejoy; Mona Doshi

Poster No. 1673

Withdrawn

Poster No. 1674

Correlation Between Crystallinity By Raman Spectroscopy And Oxidation Index By Fourier-transform Infrared Spectroscopy In Different Types Of Unused Polyethylene Tibial Inserts.

Shine Tone; Yohei Naito; Gai Kobayashi; Kazuhiro Sugita; Giuseppe Pezzotti; Masahiro Hasegawa

Poster No. 1675

Titanium-aluminum-vanadium Implant Surface Properties Impact Osseointegration And Inflammatory Mediators In Osteoporotic Rats

D. Joshua Cohen; Christine Van Duyn; Jonathan T. Dillon; Michelle B. Gallagher; James T. Sugar; Jingyao Deng; Ammar Y. Jawad; Brock P. Lodato; Michael J. McClure; Paul J. Slosar; Jeremy J. Rawlinson; Zvi Schwartz; Barbara D. Boyan

Poster No. 1676

Design And Classification Of Innovative Peptides For Musculoskeletal Infection Treatment Using Artificial Intelligence

Bingyun Li; Alexa Sowers

Poster No. 1677

Comparison Of The Electrochemical Behavior Of Conventionally And Additively Manufactured CoCrMo Alloy For Orthopedic Implants

Milad Ghayoor; Mark Morrison

Poster No. 1678

Quantitative Mapping Of Metal And Matrix Elements In Cartilage Articulated Against Cocr-alloy Using X-ray Fluorescence Microscopy
quantitative Mapping Of Metal And Matrix Elements In Cartilage Articulated Against Cocr-alloy Using X-ray Fluorescence Microscopy

Victoria Marino; Cooper Cohen; Teresa Veselack; Olga Antipova; Markus Wimmer

Poster No. 1679

Natural Vs Experimental Contamination Of External Fixator Pins In A Sheep Model

Seongjue Ahn; Kaylee Philbrick; Samir Mehta; Thomas Schaer

Poster No. 1680

Mechanical Properties, Microstructural Characterization, And Wear Resistance Of Additively Manufactured And Cast CoCrMo Alloy

Milad Ghayoor; Mark Morrison; Amit Parikh

Poster No. 1681

Novel Fabrication Of Peek Using Fused Strand Deposition Reduces Inflammatory Cytokines And Enhances MSC Differentiation In Vitro, Promoting Bone Growth And Implant Osseointegration Clinically

Jonathan T. Dillon

Poster No. 1682

A Drug-loaded Collagen Wrap For Augmented Primary Repair Of The Anterior Cruciate Ligament

Jack Rogot; Lance Murphy; Andy Lee; Robert Stefani; Claire Pinnie; Caroline Schleif; Caroline N. Fedor; Kacey G. Marra; Gerard Ateshian; Chantelle Bozynski; James Cook; Clark Hung

Poster No. 1683

Characterization Of An Additively Manufactured CoCrMo Advanced Porous Structure

Milad Ghayoor; Dongyu Zang; Mark Morrison

Poster No. 1684

Tribological Performance Of Bearing Materials For Hemiarthroplasty: An In Vitro Investigation Using Live Cartilage

Francesca de Vecchi; Victoria Marino; Thomas Schmid; Arnavaz Hakimyan; Afton Limberg; Jun Oike; Douglas Van Citters; J J Trey Crisco; Markus Wimmer

Poster No. 1685

A Novel Assessment Of Ultra-high Molecular Weight Polyethylene Oxidation For Orthopedic Applications

Azita HassanMazandarani; Ananya Mathews; William Querido; Timothy Wright; Nancy Pleshko; Aarti A. Shenoy

Poster No. 1686

Bisphosphonates Nanoparticles Loaded Microparticles For Immunomodulatory Osteoarthritis Therapy

Paul Sagoe; Kaixiang Zhang; Zachary Varrenti; Ramkumar T. Annamalai; Era Jain

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-144 Biomaterials - Repair / Replacement of Hard Tissues

Poster No. 1687

The Biomechanical And Osteo-Immunomodulatory Profiling Of Evoke[®] Demineralized Bone Matrix (DBM) Putty To Enhance Osteoinductive Potential

Derek C. Dashti; Matthew Hinson; Logan J. Grace; Candice Chen; Nathaniel T. Remlinger

Poster No. 1688

Intrinsically Disordered Peptide P6 Alters Subchondral Bone Response In A Preclinical Mouse Model Of Post-traumatic Osteoarthritis

Spencer Bryan; Tony Baldini; Arvind Sandhu; Mandeep Chokar; Oystein Ovrebo; Håvard Jostein Haugen; Mark Lee; Kent Leach; Blaine Christiansen; Maryam Rahmati; Augustine Saiz

Poster No. 1689

Rigid Rib Fixation And Polymethylmethacrylate Spacer For Salvage After Total Sternectomy

Joshua Khorsandi; Justin Kahen; Demitri Franzoni; Noama Iftekhar; Joshua MacDavid

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-145 Biomaterials - Repair / Replacement of Soft Tissues

Poster No. 1690

Withdrawn

Poster No. 1691

Chronic Toxicity Evaluation Of Metformin Lotion For Aging-induced Tendinopathy Treatment

Jianying Zhang; Soichi Hattori; Vasyl Pastukh; Celina Zhao; Liyang Chen; Kentaro Onishi; MaCalus Hogan; James Wang

Poster No. 1692

Biomimetic Adhesive Enhances Enthesis Repair In Rats

Vasyl Pastukh; Jianying Zhang; Liyang Chen; Celina Zhao; Satyaj Bhargava; Arshia Shams; James Wang

Poster No. 1693

Hyaluronic Acid Prevents Perineural Adhesion In A Rat Sciatic Nerve Model

Shinya Tsujiku; Kazuma Miyatake; Yohei Kusaba; Morita Asa; Yoshida Hideto; Yutaka Inaba

Poster No. 1694

Anterior Cruciate Ligament Reconstruction With Internal Brace: Return To Sport In Athletes

Dylan T. Gray; A. Blake Huffman; Alexander Burbelo; Brett Lowden; Andrew Schaver; Dana Lycans

Poster No. 1695

Cellular Uptake Of Biomimetic Proteoglycans With Nuclear Localization

Annika R. Bergstrom; Anita Li; Sabrina Palumbo; Efthimia Rukis; Lin Han; Michele Marcolongo

Poster No. 1696

3-sulfopropylmethacrylate Interpenetrating Polymer Network Reconstitutes The Fixed Negative Charge Density In GAG-depleted Cartilage Critical For Interstitial Fluid Load Support

Christian DeMoya; Michael Albro; Brian Snyder; Mark Grinstaff

Poster No. 1697

Analgesic Proteins In Injectable Bone Marrow Aspirate Concentrate And Adipose Tissues

Severin Ruoss; Angel Ordaz; Thomas C. Whisenant; Jeffrey L. Chen; Scott T. Ball; Adam J. Engler; Bahar Shahidi; Samuel Ward

Poster No. 1698

Multimodal Evidence Of Hyaluronic Acid-mediated Peripheral Nerve Repair: Histologic Landscape And Proteomic Profiling

Amit Mohite; Marcus Valenta; Christian Zirbes; Neill Li

Poster No. 1699

Therapeutic Potential Of Disordered Peptide P6 And Hyaluronic Acid Hydrogel For Post-meniscectomy Bone Remodeling And Osteoarthritis Prevention In A Sheep Model

Soren Johnson; Augustine Saiz; Maryam Rahmati; Oystein Overbo; Sabine Stotzel; Mark Lee; Thaqif El Khassawna; Håvard Jostein Haugen

Poster No. 1700

Comparison Of The Biomechanical And Biologic Properties Between Fresh And Frozen Bone-patellar Tendon-bone Allografts

Tyler Perleberg; Maxwell Vidal; Justin Hollenbeck; Taylor K. Calibo; Anna-Laura Nelson; Noah Knezic; Dane Lind; Rio Castro; Johnny Huard; Tyler Uppstrom; Samuel Huntley; Matthew T. Provencher

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-146 Biomaterials - Scaffolds

Poster No. 1701

Peptide-functionalized 3d-printed Biomaterial Scaffolds Direct In Situ Osteochondral Tissue Regeneration

Andrew Kitson; Marina M. Santos; Scott L. Korte; Brandon A. Krick; Julie B. Engiles; Thomas P. Schaer; Lesley W. Chow

Poster No. 1702

Voxel-programmed Micromechanical Heterogeneity Directs Durotaxis And Early Osteogenic Priming In μ Match Hydrogels

Maryam Tilton; Domenic J. Cordova; Hossein Shaygani; Ali Ghasemkhani; Anastasia B. Timoshenko

Poster No. 1703

Engineering Of A Collagen-based Scaffold Inspired By The Native Tissue Structure Of Articular Cartilage

Patrick J. LeMarble; Kevin Caparino; Shu-Tung Li

Poster No. 1704

Processing Conditions Affect Material Microstructure And Cell Activity In Hydroxyapatite Scaffolds For Bone Tissue Engineering

Timothy O. Josephson; Vivian Shi; Gautam Parthasarthy; Jeroen Eyckmans; Fiona Ginty; Elise F. Morgan

Poster No. 1705

Silk-based Biomaterial-induced Fibrosis To Improve Integration Of Transdermal Osseointegrated Prostheses

Alireza Mirahmadi; Elizabeth Vickery; Neal M. Lojek; Miryam Adelfio; Victoria A. Williams; Nadim Kheir; Diana Yeritsyan; Ara Nazarian; Chiara E. Ghezzi

Poster No. 1706

Insights Into The Proteomic Composition Of Processed Amniotic Membrane Bioscaffolds For Orthopaedic Indications

Michael Floren; Christopher Erickson; Kirk Hansen; Carolyn Rorick

Poster No. 1707

Nitric Oxide Synergizes With TGF- β 1 In Healing Of Segmental Bone Defects

Gabrielle Lorenz; Daniel Zamith Miranda; Ingrid McNamara; Jennifer Cox; Jorge Pena; Braden Miller; Manuela Gaviria; Alexander Bowers; Clay Tucker; Alejandro Almarza; Andrew Draganski; Casey M Sabbag; Joshua Nosanchuk; Juan Taboas

Poster No. 1708

Solvent-dependent Polycaprolactone/Polyethylene Oxide/Hydroxyapatite Ink For Bone Tissue Engineering

Meagan Morgan; Bin Zhang

Poster No. 1709

Selective Laser Sintered Polyethylenescaffolds Enhance Chondrogenesisinpediatricpatient-derived Auricular Chondrocytes: A Promising Tissue Engineering Approach For Microtia

Alhussain A. Ojajm; Hope C. Ball; Trinity Kronk; Gabrelle Robinson; Fayez Safadi; Ananth Murthy

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-147 Education and Outreach - Clinical Education

Poster No. 1710

Academic Productivity Among Adult Reconstruction Surgeons: Do Publications During Training Predict Future Productivity?

Brian Y. Zhou; Sameer Khawaja; Kevin Heo; Joseph Lee; Omar Syed; Aly Toure; Kene Okafor; Jacob Wilson; Ajay Premkumar

Poster No. 1711

Automated Video Evaluation Of Orthopedic Surgical Skills Using Pose Estimation Algorithms

Thomas Nyul; Aritra Chakraborty; Sean Sibley; Kyle Zelenski; Daniel Rohde; Meir Marmor

Poster No. 1712

Evaluating Characteristics And Academic Influence Of The American Shoulder And Elbow Surgeons' Charles S. Neer Award-winning Research Studies

Bryan T. Soth; Spencer M. Lee-Rey; Harry Haran; Christopher V. Wilhelm; Christopher M. Brusalis; Russell F. Warren; David M. Dines; Samuel A. Taylor; Lawrence V. Gulotta; Michael C. Fu

Poster No. 1713

The Influence Of Home And Program Affiliated Academic Productivity On Orthopaedic Residency Match Outcomes

Bryce R. Michael; Adrian Bozocca; Amogh Gadekar; Diego Garcia; Sukrit Suresh; Savyasachi Thakkar

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-148 Education and Outreach - Engineering Education

Poster No. 1714

Implement These Labs: A Low-cost, Portable, And Inquiry-based Mechanics Lab Curriculum

Sonia Bansal; Elizabeth Feeney

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-149 Imaging - Hard Tissue

Poster No. 1715

Withdrawn

Poster No. 1716

Minimizing Radiation Exposure In Quantitative Ct Of The Distal Radius: A Cadaveric Densitometric Evaluation

Chandler Rhodes; Malcolm Goldsby; Victoria Todman; Audrey Welch; Benjamin Lee; Michael Nammour; Giovanni Solitro

Poster No. 1717

Digital Dynamic Radiography As A Useful Clinical Tool For Assessing Mechanical Complications Of Hip And Knee Implants: A Case Series

Benjamin W. King; Emilio Arellano; Bailey Ross; Max McCall; Jacob Wilson; Ajay Premkumar

Poster No. 1718

Variogram-based Characterization Of Ultradistal Radius DXA Images Predicts Fragility Fractures Independently Of Bone Mineral Density (BMD) And Trabecular Bone Score (TBS)

Daniel Oravec; Ansh Shah; Ram N. Yadav; Sudhaker D. Rao; Neil Dong; Yener N. Yeni

Poster No. 1719

Preliminary Evaluation Of The Periacetabular Region Density Relationship With Iliac Crest And Pubic Rami Bmd

Yusra Soorya; Victoria Todman; Malcolm Goldsby; Audrey Welch; Shannon Kaupp; Steven Kautz; Giovanni Solitro

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-150 Imaging - Image Analyses

Poster No. 1720

Limitations And Variability In In Situ Muscle Volume Measurement Using Ultrasound

Kyla V. Holmes; Ichiro Tsukamoto; Yuki Matsui; Chunfeng Zhao

Poster No. 1721

Dynamic Analysis Of Nerves Around The Elbow Using MRI-derived 3D Modeling

Takenori Saeki

Poster No. 1722

A Novel Deep Learning Model For Automated Identification Of Spinal Fusion Hardware And Vertebral Levels On Lateral Thoracolumbar Radiographs

Eugenia Lee; Carmelo Burgio; Karlos Zepeda; Delano Trenchfield; Seong Jang; Eytan Debbi; David Mayman; Jonathan Vigdorichik; Seth Jerabek; Peter Sculco

Poster No. 1723

Withdrawn

Poster No. 1724

MRI-Based Radiomic Features Can Detect Femoral Component Loosening In Patients With Total Hip Arthroplasty

Jack Consolini; Kevin M. Koch; Hollis G. Potter; Matthew F. Koff

Poster No. 1725

Artificial Intelligence-driven Quantification Of Tibial Plateau Fracture Displacement Is Associated With Unplanned Return To The Operating Room

Bryce E. Duffett; Jon-Luc Poirier; Varun Akella; Eric S. McCoy; Vincent T.Y. Chow; Mirza F. Beg; Karteek Popuri; Roman M. Natoli; Yohan Jang; Luke A. Lopas; Christopher D. Collier

Poster No. 1726

Automated Radiographic Assessment Of Cervical Spine Alignment, Curvature, And Instability Using Pose Estimation And Deep Learning

Rohan Vemu; Cameron Noorbakhsh; Shragvi Balaji; Lorenzo Deveza

Poster No. 1727

Utilization Patterns And Predictors Of Computed Tomography Angiography In Cervical Spine Fractures Presenting To The Emergency Department From 2010 To 2022

Rahul H. Jayaram; Albert Lee; Kevin Girardi; Anshu Jonnalagadda; Ajay Malhotra; Jonathan Grauer

Poster No. 1728

Auto-labeling Of Foot And Ankle Radiographs: A Methodology To Accelerate The Development Of Machine Learning Models

Julia A. Remlinger; Shrestha Mishra; Nick Yee; Atta Taseh; Soheil Ashkani-Esfahani

Poster No. 1729

Hierarchical 3D Registration Of The Hand And Wrist From Sequential 3DCT

Amy M. Morton; Shelly Belsky; John Holtgrewe; Jean-Christophe Fillion-Robin; Beatriz Paniagua; Douglas Moore; J J Trey Crisco

Poster No. 1730

Impact Of CT Reconstruction Kernel On Radiomic Features And Fatty Infiltration Measurements In Shoulder Muscles

Hamidreza Rajabzadeh-Oghaz; Josie Elwell; Sandrine Polakovic; Scott Trenhaile; William R. Aibinder; Bradley Schoch; Bruno Gobbato; Christopher Roche

Poster No. 1731

Feasibility And Reliability Of A Semi-automated Workflow For Measuring Neck-shaft Angle And Tip-apex Distance On Hip Radiographs

Olivia M. Rice

Poster No. 1732

Heterogeneous Patterns Of Sacroiliac Joint Degeneration And Their Distinct Associations With Global Spinal Alignment

Masahiko Furuya; Yoshiki Takeoka; Takashi Yurube; Yutaro Kanda; Naotoshi Kumagai; Kohei Kuroshima; Yoshiaki Hiranaka; Daisuke Nakagawa; Yu Inoue; Takahiro Kitano; Akihiro Miyajima; Ryosuke Kuroda; Kenichiro Kakutani

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-151 Imaging - Soft Tissue

Poster No. 1733

Precision Injury Mapping In Tendon: Isolating Cell Necrosis And ECM Micro-ruptures With Amplified Femtosecond Laser Ablation

Diane Stonestreet; Robert Hawkins; Nozomi Nishimura; Nelly Andarawis-Puri

Poster No. 1734

**Pre-surgical Hip Cartilage Evaluation Using Mri T1rho Mapping On Periacetabular Osteotomy (pao)
Outcomes**

Paul Beaulé; Mary Sisson; Kawan Rakhra; Geoffrey Wilkin; Gerd Melkus; Ariane Parisien

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-152 Intervertebral Disc - Diseases and Disorders

Poster No. 1735

Identifying Genes Associated With Degenerative Disc Disease Using An Inbred Mouse Aging Panel

Yichi Chen; John P. Sundberg; Jerrold M. Ward; Beth A. Sundberg; Gabrielle N. Dudek; Cheryl L. Ackert-Bicknell

Poster No. 1736

Pre-conditioned Bone Marrow Mesenchymal Stromal Cell-derived Secretome Exerts An Anti-inflammatory Effect On Degenerative Human Nucleus Pulposus Cells In Vitro

Veronica Tilotta; Gianluca Vadala; Luca Ambrosio; Claudia Cicione; Giuseppina Di Giacomo; Fabrizio Russo; Rocco Papalia; Vincenzo Denaro

Poster No. 1737

Cigarette Smoke Extract Promotes Upregulation Of Proteins Related To Calcification In The Rat Cartilage Endplate

Joshua D. Kelley; Hui Li; Danyelle M. Townsend; Michael J. Kern; Hai Yao; Yongren Wu

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-153 Intervertebral Disc - Growth, Development and Aging

Poster No. 1738

Establishing An In Vitro Model To Study Sustained Oxidative Damage And Clearance Mechanisms In Intervertebral Disc Cells

Prashanta Silwal; Abhi Nadendla; Joon Lee; Gwendolyn Sowa; Nam Vo

Poster No. 1739

Nucleus Pulposus Runx1 Overexpression Accelerates Intervertebral Disc Aging In A Sex-dependent Manner

Changli Zhang; Takanori Fukunaga; Gilbert Gu; Martha Diaz-Hernandez; Hicham Drissi

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-154 Intervertebral Disc - Injury, Healing and Pain

Poster No. 1740

Lumbar Intervertebral Disc Injury Induces Pain-Like Behaviors And Disability In A Mouse Discogenic Pain Model

Neharika Bhadouria; Yunsoo Lee; Kaljang Sherpa; Michelle Villagran; Amanda Kopelman; Xueming Hu; Xinqi Guo; Trevonn Gyles; Andrew Hecht; Hongzhen Hu; James Iatridis

Poster No. 1741

Concurrent Characterization Of A Rodent Model Of Disc-associated Low Back Pain

Evie C. Reddick; Sydney M. Caparaso; Lizbeth Ramirez Rizo; Abigail Del Greco; Conner Allison; Tamara King; Rebecca Wachs

Poster No. 1742

Temporally Characterizing Sleep Features In A Preclinical Low Back Pain Model

Lydia Saltz; Ariel Ammentorp; Evie Reddick; Sydney Caparaso; Angel Rose Villegas; Hannah White; Heidi Kloefkorn; Rebecca Wachs

Poster No. 1743

The Ablation Of T Cells Exacerbates Intervertebral Disc Degeneration Following Injury

Sade W. Clayton; Kat Triantafyllou; Simon Tang

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-155 Intervertebral Disc - Structure, Function and Mechanics

Poster No. 1744

Determining The Fixed Charge Density Of Nucleus Pulposus Tissue Via Ca⁴⁺ Staining And La-icp-ms

Jordin Marshall; Jonathon Hammond; Anthony D. Lutton; Katherine Hohl; Mark Grinstaff; John W. Olesik; Benjamin Walter

Poster No. 1745

Material Property Sensitivity Of Disc Mechanics Under Physiological Loading: A Nonlinear Finite Element Approach

Debabrata Auddya; Harrah Newman; John Peloquin; Edward Vresilovic; Dawn Elliott

Poster No. 1746

Glut-1 Immunopositivity Is Conserved In The Nucleus Pulposus With Age-related Lumbar Disc Degeneration

Ferris Handoklow; Lyla A. Handoklow; Jake Dourdourekas; John T. Martin; Ana V. Chee

Poster No. 1747

Proteome Changes Of Structurally Compromised Annulus Fibrosus Collected From Degenerative Disc Patients

Taylor Bader; Salaam Mohammed; Manmeet Dhiman; David Hart; Holly Sparks; Paul Salo; Antoine Dufour; Ganesh Swamy

Poster No. 1748

Bony Vertebral Endplate Permeability Exhibits Pressure Dependence

Danni Porter; Dallin Dodds; Anton E. Bowden; Ethan Ence

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-156 Intervertebral Disc - Treatment and Therapeutics

Poster No. 1749

Applications Of ZNF865 CRISPR-activation To Improve Bioactivity And Bioavailability Of Biopharmaceutics For Use In Orthopaedic Applications

Hunter Levis; Lauren Kelly; Jessica R. Kramer; Robert Bowles

Poster No. 1750

PDGF Control Of Immune-neurogenic Regulatory Networks In Human Annulus Fibrosus Cells

Changli Zhang; Gilbert Gu; Martha Diaz-Hernandez; Lisbet Haglund; Hicham Drissi

Poster No. 1751

Proteomics Analysis Of Foxf1 And Brachyury Loaded Engineered Extracellular Vesicles Derived From Human Nucleus Pulposus Cells

Khady Diop; Mia Kordowski; Yuzhang Liu; Natalia Higueta-Castro; Devina Purmessur (Walter)

Poster No. 1752

Effects Of Hormonal Replacement On Menopause-induced Intervertebral Disc Degeneration

Julia Chagas; Qing Dong; Gabrielle Gilmer; Fabrisia Ambrosio; Joon Lee; Gwendolyn Sowa; Nam Vo

Poster No. 1753

Cryopreserving Intact Intervertebral Discs For Increased Tissue Access

Rachel M. Thompson; Ward Shalash; Morgan Giers; Adam Higgins

Poster No. 1754

Role Of Acid-sensing Ion Channels In Human Adipose-derived Stem Cell Response To Acute Vs Gradual Acid Stress

Collin F. Vogel; Jiro Nagatomi

Poster No. 1755

CRISPRa Regulation Of ZNF865 Decreases SASP Expression And Reprograms Gene Expression In Human Degenerative Np Cells To A Healthy NP Cell State

Christian Lewis; Hunter Levis; Brandon Lawrence; Robert Bowles

Poster No. 1756

Functional Characterization Of Mesenchymal Stem Cells In Human Nucleus Pulposus Tissue

Kathy Cao; Caleb Witsken; Weijia Zhou; Richard Liu; Mahir Kota; Trey Philipp; Cade Hines; Caroline Keller; Kaleb Patterson; Spencer Myres; Sai Manikonda; Carl Suerte; Lorenzo Deveza

Poster No. 1757

IL-1beta Does Not Exacerbate Cell Death In A Large-scale Tissue-engineered Intervertebral Disc

Matthew Fainor; Alexandra J. Baranyai; Robert Mauck; Harvey Smith; Sarah Gullbrand

Poster No. 1758

Supplementation Of Chondroitin Sulfate Proteoglycan Stimulates Anabolic Turnover In Bovine And Human Nucleus Pulposus Cells Through Gelsolin/actin Pathway Under Physiologically Relevant Culture Conditions In Vitro

Kunihiko Miyazaki; Yusuke Aoki; James D. Kang; Shuichi Mizuno

Poster No. 1759

Regulation Of Nucleus Pulposus Cell Phenotype Through Actomyosin Contractility And Cell Shape

Gabriella C. Bond; Nadeen Chahine

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-157 Spine - Diagnostics

Poster No. 1760

Withdrawn

Poster No. 1761

Development Of A Machine Learning Tool To Improve Intra-operative Neuromonitoring

Varun Arvind; Anil Mendiratta; Omar Taha; Matthew Weintraub; Michael Vitale

Poster No. 1762

Preoperative Canal Diameter, Foraminal Stenosis, Or Cord-lamina Angle Do Not Predict Postoperative C5 Palsy After Cervical Spine Surgery

William A. Green; Mitchell Ng; Gregory Toci; Jonathan Dalton; Rachel Huang; Michael Carter; Aditya Mazmudar; Robert J. Oris; Yulia Lee; Yasmine Eichbaum; Morgan Hitchner; Joshua Mathew; Gregorio Baek; Rajkishen Narayanan; Andrew Kim; Sebastian Fras; Marco Goldberg; Evginy Uvarov; Mark F. Kurd; Ian D. Kaye; Jose A. Canseco; Alan Hilibrand; Alexander Vaccaro; Gregory D. Schroeder; Christopher Kepler

Poster No. 1763

Scoliosis In Costello Syndrome: Insights Into Orthopedic Manifestations And Complications Using Natural Language Processing

Nazgol Tavabi; Kshitij Pawar; Sydney Lee; Shanika De Silva; Grant D. Hogue; Ata M. Kiapour

Poster No. 1764

Comparison Of Plantar Pressure Mapping To Traditional Force Plate For Assessing Imbalance

Isabel Hansmann Cañas; Ghazal Shabestanipour; Sarvenaz Fatapour; Gage Olson; Kelsey Detels; Shanni Zhou; Harrison Wilson; Hamid Ghaednia; Joseph Schwab

Poster No. 1765

Predicting Magnetic Resonance Imaging Results Using Dynamic Lumbar Skin Strain Fields

Jordan Ryan; Matthew Hancock; David T. Fullwood; Ulrike Mitchell; Anton E. Bowden

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-158 Spine - Growth, Development and Aging

Poster No. 1766

Age-related Bone Loss In Mouse Lumbar Vertebrae Is Affected By Region, Sex, And Level: Implications For Spinal Loading And Analysis Methods

Charu Jain; Neharika Bhadouria; Justin Tiao; Jonathan Huang; Yunsoo Lee; Saad Chaudhary; Andrew Hecht; Nilsson Holguin; James Iatridis

Poster No. 1767

Apical Intervertebral Disc Morphology Enhances Prediction Of Curve Progression In Adolescent Idiopathic Scoliosis

Conor Boylan; Morgan Jones; David Polly Jr; Arin Ellingson

Poster No. 1768

Fusion Raises Risk Of Cesarean Section But Not Pregnancy Complications Or Conversion To Cesarean In First-time Mothers With Adolescent Idiopathic Scoliosis

Alexandros F. Pappajohn; Anthony E. Seddio; Om Jahagirdar; Rachel X. Shi; Albert H. Lee; Mert O. Bahtiyar; Jonathan N. Grauer

Poster No. 1769

Text Mining For Large Scale Analysis Of Lumbar Spine Pathologies In Radiology Reports

Mattia Perrone; Hanadi Albadi; D'Mar Moore; Ashrith Alavilli; John Martin

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-159 Spine - Injury, Healing and Pain

Poster No. 1770

The Effect Of Chronic Low Back Pain On Whole-body Gait Dynamics

Aniket Pratapneni; Girish Viraraghavan; Nicholas Harris; Pavlos Silvestros; Jeannie F. Bailey

Poster No. 1771

Prospective Follow-up Of Functional And Quality-of-life Outcomes In Patients With Spondylodiscitis During Rehabilitation

Natalie Greiner; Hans-Jörg Schubert; Alexander C. Disch; Klaus-Dieter Schaser; Stefan Zwingenberger

Poster No. 1772

Withdrawn

Poster No. 1773

Discriminating Hip And Spine Pathology Based On Full-body Movement Quality Analysis During Gait

Girish Viraraghavan; Aidan Foley; Jonathan Varcados; Shahabeddin Yazdanpanah; Pavlos Silvestros; Emily Chin; Erik Hansen; Claudio Diaz Ledezma; Alekos Theologis; Lionel Metz; Bobby Tay; Jeannie Bailey

Poster No. 1774

Trajectory Of BMI Percentile After Posterior Spinal Fusion In Adolescent Idiopathic Scoliosis: A 608-patient Cohort NLP Study

Nazgol Tavabi; Nishita Kalepalli; Sydney Lee; Shanika De Silva; Grant D. Hogue; Ata M. Kiapour

Poster No. 1775

Impact Of Lower Extremity Amputation On Spinal Health: A Comparative Analysis Of Back Pathologies In Transfemoral And Transtibial Amputees

Eiden Lami; Farid Amirouche; Nirav Mungalpara; Majd Mzeihem

Poster No. 1776

Is Preoperative Sarcopenia A Risk Factor For Loss Of Cervical Lordosis Following Laminoplasty

William A. Green; Jonathan Dalton; Robert Oris; Joydeep Baidya; Mitchell Ng; Rajkishen Narayanan; Yunsoo Lee; Joshua Mathew; Gregorio Baek; Yulia Lee; Yasmine Eichbaum; Morgan Hitchner; Alexa Tomlak; Teeto Ezeonu; Ali Farooqi; Guttu Maskalo; Emerson Rowe; Justin Wright; Keyur Patel; Sebastian Fras; Jose Canseco; Alan Hilibrand; Alexander Vaccaro; Christopher Kepler

Poster No. 1777

Comparative Risk Of Spinal Epidural Hematoma Following Laminoplasty And Laminectomy With Fusion In Patients With Degenerative Cervical Myelopathy

Daniel Rusu; Aidan Lindgren; Henry Avetisian; Marco Napolitano; William J. Karakash; Mirbahador Athari; Marc A. Abdou; Chimere O. Ezuma; Dil V. Patel; Jeffrey C. Wang; Raymond J. Hah; Ram K. Alluri

Poster No. 1778

Testing The Efficacy Of The Purgo Pouch For Biofilm Eradication In The Spine

Sean M. Lavering; Mario Y. Lopez; Helena H. Vu; Nicholas Ashton; Brooke Kawaguchi; Richard Epperson; Dustin Williams

Poster No. 1779

Relationship Between Intravoxel Incoherent Motion Metrics And Skeletal Muscle Performance In Individuals With Low Back Pain

Robert Fisch; Zachary Brumm; Anirudh Anand; Lara Havandjian; Armin Zavareh; Kamshad Raiszadeh; David B. Berry; Bahar Shahidi

Poster No. 1780

Machine Learning Models Forecast Outcomes In Cervical Disc Replacement

Jayalakshmi Jain; Jibreel Hussain; Apurva Choubey; Nezar Abunnur; Steven Mardjetko

Poster No. 1781

A Modern Tool For A Complex Procedure: Machine Learning-based Outcome Prediction In Lumbar Fusion

Apurva Choubey; Jibreel Hussain; Jayalakshmi Jain; Nezar Abunnur; Steven Mardjetko

Poster No. 1782

Incidence & Recovery Of Sexual Dysfunction In Cauda Equina Syndrome Following Surgical Decompression: A Systematic Review

Hesham Tanbour; Sathish Muthu; Vibhu K. Viswanathan; Sakthivel Manoharan

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-160 Spine - Structure, Function and Mechanics

Poster No. 1783

Predicting Vertebral Compression Strength: Quantitative CT Versus MRI-based Bone Quality

Anna-Maria Mielke; Soji Tani; Koji Ishikawa; Marco D. Burkhard; Bruno Verna; Ali Guven; Ek T. Tan; John A. Carrino; Jennifer Shue; Federico P. Girardi; Andrew A. Sama; Frank P. Cammisa; Alexander P. Hughes

Poster No. 1784

Improving Care For Spinal Deformity Patients: Utilizing Wearable Tools For Functional And Disability Assessments

Kade Kaufmann; Ye Shu; William Lavelle; Yair Barzilay; Prasanth Romiyo; Addisu Mesfin; Tyler Schmidt; Alan Daniels; Bassel Diebo; Varun Puvanesarajah; Ram Haddas

Poster No. 1785

Anterior Cervical Discectomy And Fusion (ACDF) Appears To Affect Adjacent Disc Shear, But Not Compression-distraction Deformation, 3 Years Post-surgery

C. James Kim; Clarissa M. LeVasseur; Michael Spitnale; Richard Wawrose; William Donaldson; Jeremy Shaw; Joon Lee; William Anderst

Poster No. 1786

One- And Two-level Anterior Discectomy And Fusion (ACDF) Are Not Associated With Adjacent-level Bony Foraminal Narrowing Three-years After Surgery When Compared To Age-matched Healthy Controls

C. James Kim; Clarissa LeVasseur; Jeremy Shaw; William Donaldson; Joon Lee; William Anderst

Poster No. 1787

Development Of A Reproducible In Vivo Rat Model For Investigating Ligamentum Flavum Hypertrophy And Pain-related Behaviors

Peter G. Alexander; Rahul Ramanathan; Christopher Como; Anthony Oyekan; Karen Clark; Gwendolyn Sowa; Nam Vo; Joon Lee

Poster No. 1788

Determining The Minimum Number Of Monitoring Days For Accurate Weekly Step And Activity Count Estimation Across Four Different Sensor Locations In Chronic Low Back Pain Population

Zakiy F. Alfikri; Rachel E. Roos; Kevin M. Bell

Poster No. 1789

The Influence Of Multifidus Muscle Quality On Longitudinal Improvement Of Pain And Physical Function In Patients With Chronic LBP

Alexis S. Camacho; Erin Archibeck; Aaron Scheffler; Jeffrey Lotz; Jeannie F. Bailey

Poster No. 1790

Assessment Of Stiffness Variability In Thoracic Vertebrae: Implications For Surgical Treatment Of Compression Fractures

Eiden Lami; Alessia Gemino; Giovanni Solitro; Majd Mzeihem; Farid Amirouche

Poster No. 1791

Bertolotti Syndrome: Type IV Effects On Kinematics Of The Lumbar Spine

Elizabeth Pace; Jeremy G. Loss; Mario-Cyriac Tcheukado; Michael Steinmetz

Poster No. 1792

Deviation Of Spinous Processes In The Adult Cervical Spine

Kevin G. Liu; Jacob T. Wechsler; Daniel Rusu; Aidan Lindgren; Marc A. Abdou; Jeffrey C. Wang; Raymond J. Hah; Ram K. Alluri

Poster No. 1793

Evaluating Immediate Biomechanical Changes In Chronic Low Back Pain Patients Before And After Diagnostic Medial Branch Nerve Block

Alexis S. Camacho; Aniket Pratapneni; Christopher Orozco; Nicholas Harris; Emily Chin; Patricia Zheng; Paolo Mimbella; Conor O'Neill; Jeannie Bailey

Poster No. 1794

Spinopelvic Compensation In Sitting And Standing Postures Following Lumbar Fusion

Aidan Lindgren; Daniel Rusu; William J. Karakash; Matthew Gallo; Andy Ton; Kevin Liu; Maya Abu-Zahra; Henry Avetisian; Marc Abdou; Jeffrey Wang; Ram Alluri; Raymond J. Hah

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-161 Spine - Surgical and Non-Surgical Interventions

Poster No. 1795

National Trends In The Surgical Management Of Lumbar Facet Cysts: A National Database Study

Joshua G. Sanchez; Julian Smith-Voudouris; Katie M. Zehner; Anthony E. Seddio; Scott Halperin; Sahir Jabbouri; Raj Gala; Jonathan Grauer

Poster No. 1796

Halo Gravity Traction In Early-onset Scoliosis: Review Of Biomechanical Principles And The Utilization Of Pulleys

Holden Husbands; Ashleigh Warner

Poster No. 1797

Endoscopic Lumbar Decompression Appears To Ameliorate Risks Associated With Obesity That Have Been Previously Reported With More Traditional Approaches: Analysis Of A Large United States Administrative Database

Joshua G. Sanchez; Julian Smith-Voudouris; Katie Zehner; Scott Halperin; Sahir Jabbouri; Anthony E. Seddio; Daniel Rubio; Jonathan Grauer

Poster No. 1798

Lower Costs And Health Care Resource Utilization Of Patients Undergoing Spinal Fusion Treated With Liposomal Bupivacaine In The Inpatient Commercial Setting: A Propensity Score Matched Cohort

Michael Wang; Jennifer Lin; Gabriel Wong

Poster No. 1799

Anterior Versus Posterior Approach In Cervical Fusion In Patients With Ossification Of The Posterior Longitudinal Ligament

William A. Green; Alec Giakas; Jarod Olson; Jonathan Dalton; Mitchell Ng; Yulia Lee; Yasmine Eichbaum; Morgan Hitchner; Joshua Mathew; Gregorio Baek; Nicholas Tewell; Ryan Cha; Pranav Jain; Alan Hilibrand; Alexander Vaccaro; Christopher Kepler; Gregory D. Schroeder

Poster No. 1800

Characterizing Risk Factors For New Neurological Deficits In Pediatric Patients Undergoing Posterior Spinal Fusion For Idiopathic Scoliosis

Yoli Meydan; James Barsi

Poster No. 1801

Developing Machine Learning Models To Predict Patient-reported Outcomes Following Anterior Cervical Discectomy And Fusion

Gregorio Baek; Robert J. Oris; Jonathan Dalton; Joydeep Baidya; Jarod Olson; Rachel Huang; Chloe Herczeg; Mitchell Ng; William Green; Joshua Mathew; Yasmine Eichbaum; Yulia Lee; Morgan Hitchner; Theresa Chua; Logan Witt; John Czaernecki; Antony Fuleihan; Jose Canseco; Alan Hilibrand; Alexander Vaccaro; Gregory Schroeder; Christopher Kepler

Poster No. 1802

Comparing Mental Health Outcomes Following Surgical, Bracing, Or Observational Treatment In Pediatric Scoliosis Patients

Bryan K. Chen; Yoli Meydan; Gregory Sacks; Ryan Lebens; Jeffrey Zhang; James Barsi

Poster No. 1803

Patients Taking Glp-1 Agonists For Weight-loss Prior To Posterior Lumbar Decompression And Fusion Have Similar Surgical And Patient-

Gregorio Baek; Joydeep Baidya; Jonathan Dalton; Adam Fano; Robert Oris; Rachel Huang; Chloe Herczeg; Jarod Olson; Mitchell Ng; Joshua Mathew; Yasmine Eichbaum; Yulia Lee; Morgan Hitchner; William

Green; Theresa Chua; Matthew Titus; Amar Chinni; Jose Canseco; Alan Hilibrand; Alexander Vaccaro; Christopher Kepler; Gregory Schroeder

Poster No. 1804

Withdrawn

Poster No. 1805

Clinical Outcomes And Recovery Timelines Following 1-, 2-, And 3-level Anterior Cervical Discectomy And Fusion: A Comparative Analysis Of Proms And Mcd Achievement

Yulia Lee; Mitchell Ng; Chloe Herczeg; Jonathan Dalton; Yasmine Eichbaum; Gregorio Baek; Joshua Mathew; Morgan Hitchner; William Green; Alan S. Hilibrand; Alexander Vaccaro; Christopher Kepler; Gregory D. Schroeder

Poster No. 1806

Active Treatment Of Preoperative Depression Leads To Functional Outcomes Comparable To Non-diagnosed Patients After Lumbar Fusion.

Joshua Mathew; Mitchell Ng; Chloe Herczeg; Jonathan Dalton; William Green; Yulia Lee; Yasmine Eichbaum; Gregorio Baek; Morgan Hitchner; Nicholas Wang; Rohan Patil; Lydia Cole; Max Kunz; Alexa Tomlak; Michael McCurdy; Tariq Issa; Abdullah Mahmood; Joseph Raphael; sourabh vellala; Alan Hilibrand; Alexander Vaccaro; Gregory Schroeder; Christopher Kepler

Poster No. 1807

The Impact Of GLP-1 Agonist Use Prior To Lumbar Spine Surgery On Patient Outcomes And Complication Rates

Bradley Lambert; Zachary Diltz; Carter Lurk; Andrei Demkov; Karim Shafi; Comron Saifi; Shari Liberman; Mark Prasarn

Poster No. 1808

Trends In Utilization And Cost Of Endoscopic Lumbar Decompression In Ambulatory Surgical Centers: A Nationwide Database Analysis From 2018 Through 2022

Mitchell Ng; Paul Mastrokostas; Aaron B. Levi; Luke B. Schwartz; Leonidas E. Mastrokostas; Yasmine K. Eichbaum; Yulia Lee; Morgan Hitchner; Will A. Green; Gregorio Baek; Joshua Mathew; Jonathan Dalton; Alec Giakas; Rajendra Singh; Afshin E. Razi; Ian D. Kaye; Barrett Woods; Mark F. Kurd; Jose A. Canseco; Thomas D. Cha; Alan S. Hilibrand; Alexander R. Vaccaro; Gregory D. Schroeder; Christopher K. Kepler

Poster No. 1809

Rising Adoption Of Off-label Three-level Cervical Disc Replacement: Trends And Predictors

Aidan R. Lindgren; Daniel Rusu; Henry Avetisian; William J. Karakash; Marc Abdou; Dil V. Patel; Jeffrey C. Wang; Raymond Hah; Ram K. Alluri

Poster No. 1810

Hydroxyapatite-incorporated Polyetheretherketone And Titanium-coated Polyetheretherketone Interbody Cages For Lumbar And Cervical Spine Fusions: A Retrospective Fusion Assessment

Victor T. Hung; Caden Moenning; Miguel Diaz; Emma Watson; Vansh Patel; Taylor Jones; Donnell McDonald; John Small

Poster No. 1811

Withdrawn

Poster No. 1812

Risk Factors For Reherniation Following Lumbar Microdiscectomy: An Institutional Retrospective Analysis

Aidan Lindgren; Mirbahador Athari; Daniel Rusu; Henry Avetisian; Jessica Porras; Ryan Chang; Joshua Davood; Ji Chin; Jeffrey C. Wang; Raymond Hah; Ram Alluri

Poster No. 1813

Withdrawn

Poster No. 1814

Quality-adjusted Life Years In Spine Surgery

Justin W. Zheng; William J. Karakash; Genevieve Fraipont; Henry Avetisian; Daniel Rusu; Aidan Lindgren; Marc A. Abdou; Jeffrey C. Wang; Raymond J. Hah; Ram K. Alluri

Poster No. 1815

Multifocal Non-Contiguous Spinal Tuberculosis: Outcome Report In Three Surgically-treated Patients

Hesham Tanbour; Sathish Muthu; Vibhu Viswanathan; Sakthivel Manoharan

Poster No. 1816

Radiation-Free Machine-Vision Navigation Achieves $\geq 99\%$ Accuracy In Thoracolumbar Pedicle Screw Placement

Justin Tiao; Jonathan Huang; Olgerta Mucollari; Charlene W. Cai; Noor Maza; Junho Song; Yunsoo Lee; Saad B. Chaudhary; James Iatridis; Andrew Hecht

Poster No. 1817

Patterns Of Physical Therapy Utilization Following Microdiscectomy

Maya S. Abu-Zahra; Daniel Rusu; Natalie Kistler; Aidan Lindgren; Marc Abdou; Ram Alluri; Justin M. Lantz

Poster No. 1818

Risk Factors For Rod Fracture In Degenerative Adult Spinal Deformity: Emphasis On Postoperative Spinopelvic Parameters

Aidan Lindgren; Mirbahador Athari; Daniel Rusu; Kevin Mathew; Henry Avetisian; William Karakash; Marc Abdou; Jeffrey Wang; Ram K. Alluri; Raymond J. Hah

Poster No. 1819

Multi-Point Fixation Of Cervical Kyphotic Deformity - A Case Study

Jackson Byrd; Hesham Tanbour; Chandler Davis; Sakthivel Manoharan

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-162 Cartilage and Synovium - Diseases and Disorders

Poster No. 1820

Early Transcriptomic Responses To Acute Knee Injury

Kyohei Takase; Dustin Leale; Thomas Jenkins; Seong Hee Paek; Jasper Yik; Dominik Haudenschild

Poster No. 1821

Osteoarthritis Related Gait Patterns Lead To Increased Cartilage Friction

Luisa de Roy; Graciosa Teixeira; Maria Ahrens; Anita Ignatius; Andreas Martin Seitz

Poster No. 1822

Multi-species Bioinformatics And Experimental Validation Reveal Cysteine Metabolism Dysregulation As A Driver Of Ferroptosis In Osteoarthritis

Lu Feng

Poster No. 1823

Computational Pathology Measures OA Cartilage Damage And Recapitulates OARSI Scoring In A Mouse Model Of Tibial Loading-induced OA

Richard D. Bell; Omar Dervisevic; Miguel Otero; Marjolein Christine Hermance van der Meulen

Poster No. 1824

A Transcriptomic Analysis Of Cartilage-Synovium Crosstalk In The Transition From Hip Femoroacetabular Impingement To Osteoarthritis Highlights Neuroregulatory Pathways As Key Drivers Of Hip Osteoarthritis Progression

Chengchong Ai; Jiachen Liu; Yoshihito Suda; Jie Shen; Robert H. Brophy; Regis J. O'Keefe; John C. Clohisy; Cecilia Pascual-Garrido

Poster No. 1825

Depth Dependent Impact Of Estrogen On Chondrocyte Mitochondrial Function After Physiological Compression Of Femoral Condylar Cartilage

Emma` E. Stevens; Jill Middendorf

Poster No. 1826

Relaxin Family Peptide 1 As A Pathogenic Factor For Femoroacetabular Impingement: Expression In The Murine Hip Joint

Taichi Shimizu; Hiroyuki Morimoto; Yoichi Murata; Hirotaka Nakashima; Keiji Kokubu; Ryoko Baba; Akinori Sakai; Soshi Uchida

Poster No. 1827

Klf15 Deficiency Activates β -catenin And Is Involved In The Development Of Osteoarthritis

Akira Saitoh; Shinya Hayashi; Tomoyuki Matsumoto; Naoki Nakano

Poster No. 1828

Revitalizing Senescent Chondrocytes: The Protective Role Of Bmscs-apoptotic Bodies Through The Raf/p38 Pathway

Shiqi Xiang; Ruilin Xu; Pan Chen; Junjie Wang; Weihong Zhu; Junyong Wu; Hang Lin; Zhihong Li

Poster No. 1829

A Rare Mutation In The TNFRSF11B Gene Suggests A Novel Role For Osteoprotegerin In Chondrogenesis

Johana Klasova; Cassandra M. Meyer; Tyson L. Scrobeck; Brett A. Freedman; Christopher H. Evans; Rodolfo E. de la Vega

Poster No. 1830

The Role Of Fibroblast-like Synoviocyte Plasticity In Pro-inflammatory Cytokine-induced Changes To The Synovium

Derek Ning; Clark Hung; Ethan Lee; Hayden Claussen; Gerard Ateshian; Lianna Gangi

Poster No. 1831

Inflammatory Signaling Modulates Ecm Dynamics In Primary And Ipsc-derived Cells Using An Organ-on-chip Model

Yasemin S. Ergul; Mehmet Sertac Cekuc; Patrick M. Blankenberg; Monica Thukkaram; Roger Wise; Jonathan Ureel; Meagan Makarczyk; Simon Chow; Hang Lin; Bruce Bunnell; Qi Gao; Stuart Goodman

Poster No. 1832

Single-cell Analysis Of Articular Cartilage Reveals Diverse Cellular Populations And A Novel Chondrocyte Cluster Characterized By Increased Cholesterol Metabolism And Endoplasmic Reticulum Stress Response In Knee Osteoarthritis

Yu Kobori; Kohei Nishitani; Hiroyuki Yoshitomi; Akinori Murakami; Shinichi Kuriyama; Akio Sakamoto; Takashi Noguchi; Yugo Morita; Takashi Sono; Takayuki Fujii; Koichi Murata; Junya Toguchida; Hideki Ueno; Yasuhiro Murakawa; Chikashi Terao; Shuichi Matsuda

Poster No. 1833

Development Of Chronic Synovitis In Proteoglycan-4 Conditionally Inactivated Mice Is Dependent On Cd44 Expression

Khaled Elsaid; Ling Zhang; Thomas Zhao; Ava Marks; Gregory Jay

Poster No. 1834

Disruption Of Proteoglycan-4 (PRG4) Signaling Is Associated With High-grade Synovitis In OA Patients Undergoing Knee Arthroplasty

Khaled Elsaid; Ling Zhang; Ava Marks; Derek Jenkins; Gregory Jay

Poster No. 1835

Exosome-mediated Crosstalk Between Synovium And Cartilage Via The Irf7/ptma Pathway In Steroid-induced Osteonecrosis Of The Femoral Head

Longfei Han; Qiushi Wei; Fan Yang; Mincong He

Poster No. 1836

The Evolution Of Therapeutic Strategies For Osteoarthritis: From Pharmacotherapy To Cellular Technologies.

Dariia Yusupova

Poster No. 1837

Chondrocyte Viability And Function Is Impaired By E-cigarette Liquid Flavor Additives

Anzor Said; Connor Jaedicke; Jessica Cottrell

Poster No. 1838

Withdrawn

Poster No. 1839

Angiogenin Promotes Osteoarthritis Progression Via Subchondral Angiogenesis, While A Progranulin-derived Fragment Mitigates This Effect By Inducing Angiogenin Degradation

Renpeng Zhou; Weirong Hu; Wenyu Fu; Chuan-ju Liu

Poster No. 1840

P85 α Deficiency Exacerbates Osteoarthritis By Impairing Pgrn/tnfr2-mediated Chondrocyte Anabolism

Renpeng Zhou; Wenyu Fu; Kaidi Wang; Chuan-ju Liu

Poster No. 1841

Histological Analysis Of Cartilage Abnormalities And Therapeutic Effects In Hyp Mice, A Model Of XLH

Takuya Ogawa; Tomohiro Shimizu; Tomoka Hasegawa; Norio Amizuka; Norimasa Iwasaki

Poster No. 1842

Discovery Of A Naturally Occurring Inhibitor Of C5a/c5ar1 Signaling That Regulates Inflammatory Joint Disease

Wenyu Fu; Guiwu Huang; Xudong Cui; Chaopeng He; Xiangli Zhao; Chuan-ju Liu

Poster No. 1843

Matrikine-activated Synovial Fibroblasts Promote Inflammatory Responses And Impair Chondrocyte Function

Jorge G. Fernandez Davila; Ralph Alberto; Brian G. Pietrosimone; Jacqueline Shine; Carolina Alvarez; Adam B. Yanke; Christopher W. Olcott; Douglas H. Phanstiel; Brian O. Diekman; Richard F. Loeser

Poster No. 1844

Targeted Matrix Metalloproteinase (mmp-2,-3,-7)inhibition Maintains Matrix Architecture And Function In Osteoarthritic Cartilage

Marina Danalache; Moritz Kurschatke; Elena Pradarutti; Rosa Riester; Ulf Krister Hofmann; Klaus Peter Günther; Farshid Guilak

Poster No. 1845

Proof-of-concept For Salivary Comp Detection For Early Osteoarthritis Using An AI-driven Nanoengineered Biosensor

Hailey B. Hulse; Mudassir T. Khan; Mareeswari Paramasivan; Vaishnavi Guruprasad; Rashwitha J. Saldanha; Puranjay Gupta; Mark Barba; Mathew Mathew

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-163 Cartilage and Synovium - Growth, Development and Aging

Poster No. 1846

Cartilage-specific Deletion Of Acetyl-coa Carboxylase 1 (acc1) Disrupts Growth Plate Development And Alters Skeletal Growth

Shadi Moradi; Shouan Zhu; Anupama Binoy

Poster No. 1847

Whole-genome Sequencing Of Human Chondrocytes Reveals Genome Instability Due To Endogenous Mutagenic Factors

Jacqueline Shine; Safia Mahabub Sauty; Hamed Bostan; Jianliang Li; Piotr A. Mieczkowski; Richard F. Loeser; Brian O. Diekman; Dmitry A. Gordenin

Poster No. 1848

Aging Disrupts The Pericellular Microenvironment Of Articular Cartilage In The Knee Joint

Adam M. Khay; Nana Takenaka-Ninagawa; Swarali Paranjape; Tyler J. McNeill; George R. Malik; Fabrisia Ambrosio; Hirotaka Iijima

Poster No. 1849

Applying A Protac Drug Shp2d26 To Promote Cartilage Anabolism And Chondrogenesis

Anne Yau; Alexandria Martinez; Jiahui Huang; Adinai Chonweerawong; Cam Nguyen; Lijun Wang; Shaomeng Wang; Richard Terek; Wentian Yang

Poster No. 1850

Unbiased Secretome Profiling Reveals The Beneficial Effects Of Fgf18 On Mouse Knee Articular Cartilage

Veeraj Shah; Chitra Dahia

Poster No. 1851

Lubricin Expressing Chondrocyte Progenitor Cell Derived Exosomes As A Potential Therapeutic For Osteoarthritis

Andrew Selvadoss; Mahnia Asadollahi; Helna Mary Baby; Hengli Zhang; Andreia M. Ionescu; Ambika Bajpayee

Poster No. 1852

Hyaluronan Synthesis And Degradation Entail Limb Synovial Joint Cavitation

Minwook Kim; Heejong Kim; Eiki Koyama; Nancy Pleshko; Mary M. Cowman

Poster No. 1853

Type XI Collagen Is Essential For Epiphyseal Growth Plate Cartilage Formation And Cartilage-to-bone Remodeling

Jiaqi Xiang; Bryan Kwok; Sobhan Ghaeini-Hesaroueiye; Siyan Li; Sara Tufa; Douglas Keene; David Birk; Nathaniel Dymont; Robert Mauck; Véronique Lefebvre; Eiki Koyama; Lin Han

Poster No. 1854

Multi-omics Analyses Reveal The Skeletal Progenitor Cells That Drive Long Bone Growth At Different Postnatal Stages In Mouse Growth Plates

Jingyu He; Courtney Leong; Fangzhou Bian; Holly K. Johnson; Zhaoyang Liu

Poster No. 1855

Age-dependent Articular Cartilage Responses To BMP13 Result In Impaired Regenerative Potential

Vianna Martinez; Pranav Rastogi; Amy McNulty

Poster No. 1856

Temporal Dysregulation Of Chondrocyte Maturation And Extracellular Matrix Modification Following Neonatal Type III Collagen Loss In Murine Femoral Head Cartilage

Tiffany C. Wu; Daniel C. Stewart; William Yen; Yuchen Liu; Sidney Wong; Lin Han; Robert L. Mauck; Susan W. Volk

Poster No. 1857

Functional Follow-up Of PAPP A As A Genetic Risk Factor For Osteoarthritis

Jacqueline Shine; Alex Li; Antony Ponmany; Philip Richard Coryell; Douglas Howard Phanstiel; Richard Frank Loeser; Brian O'Callaghan Diekman

Poster No. 1858

Nicotinamide Adenine Dinucleotide (NAD) Salvage Is Essential For Physeal But Not Articular Chondrocyte Survival And Function In Young Adult Mice

Landon B. Gatrell; Aaron D. Warren; Olivia Reyes-Castro; Maria Almeida; Ryan M. Porter

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-164 Cartilage and Synovium - Injury and Healing

Poster No. 1859

Multi-omics And Cellular Function Analyses Of Humanipsc- And Imsc-derived Extracellular Vesicles In Human Articular Chondrocytes

Jhong-You Li

Poster No. 1860

A Novel Approach To Harness Mesenchymal Stromal Cells To Augment Articular Cartilage Regeneration: An In Vitro And In Vivo Assessment

Mani Vessal; Simaron Dhillon; Anthony Ratcliffe; Fatemeh Saed-Nejad; Miya Liku; Megan Swim; Seena Ratcliffe; Haley Cowles; Robert Sah; Albert Chen; Florene Xu; Kevin Stone

Poster No. 1861

Pharmacological Manipulation Of Ccr7 Prevents Bony Growth Imbalance Following Physeal Injury In Mice

Yuko Sakai; Masatake Matsuoka; Taku Ebata; Ryuichi Fukuda; Kentaro Homan; Tomohiro Onodera; Norimasa Iwasaki

Poster No. 1862

Investigating The Role Of DRD4 In The Development Of Post-traumatic Osteoarthritis

Thomas J. Kean; Nirihm Shah; Michelle Chen; Shiloh Tsang; Kasey Taplin; Carlos Girlando; Alyssa Xiong; David E. Johnson; Farhan Fuad Abir; Christian Lopez; Laura Brattain; Rachel Kemp; Najla Adel Saleh

Poster No. 1863

Correlation Between Mri-based Imaging Assessment Using Mocart 2.0 Knee Score And Clinical Outcomes After Autologous Chondrocyte Implantation

Taisei Suzuki; Tomoya Iseki; Shintaro Onishi; Takuya Iseki; Masaaki Onishi; Hiroshi Nakayama; Toshiya Tachibana

Poster No. 1864

Sox5 As A Transcriptional Mediator Of Synovial Disease In PTOA

Adrienne A. Giannone; Lindsey Lammlin; Scarlet Howser; Isabelle Smith; Alexander Knights; Tristan Maerz

Poster No. 1865

A Next-generation, Suture-free Cartilage Repair Strategy Using A Col II Patch Graft And HPDA Fueled Biogluce

Hasan Rafsan Jani; Random Nisia; Solaiman Tarafder

Poster No. 1866

Cold Saline Submersion Preserves Chondrocytes During Osteochondral Allograft Harvest

Adam B. Yanke; Cade Smelley; Edouard Augustin; Divesh Sachdev; Kofi Acheampong; Jakob Ackermann; Arnavaz Hakimiyan

Poster No. 1867

Development Of A Therapeutic Drug For Hemophilic Arthropathy Via Ferroptosis

Hiroto Yamamoto; Kenya Terabe; Mochihito Suzuki; Yuki Saito; Yuma Saito; Toshifumi Sato; Shuji Asai; Shiro Imagama

Poster No. 1868

Human Bone Morphogenetic Protein 4 Mrna For Cartilage Repair In Dmm-induced Osteoarthritis Model In Aged Mice

Keisuke Nakayama; Xueqin Gao; Zuokui Xiao; Matthieu Huard; Shintaro Mukohara; Aryn Cummings; Linda H. Li; Chiara Mancino; John Cooke; Francesca Tarabali; Marc Philippon; Johnny Huard

Poster No. 1869

Injectable Hydrogel For Sustained Delivery Of Lacosamide In Treating Osteoarthritis

Chaopeng He; Guiwu Huang; Wenyu Fu; Lida Moradi; Jingwei Bi; Chuan-ju Liu

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-165 Cartilage and Synovium - Mechanobiology

Poster No. 1870

Intra-Articular Non-muscle Myosin II Knockout Mitigates Pain And Synovial Hyperplasia After Joint Injury

Elizabeth R. Bernstein; Gabriella Garza; Kevin Burt; Brett Croen; Rachel Flaugh; Liane Miller; Robert Mauck; Nathaniel Dymant

Poster No. 1871

Finite Element Analysis Of Indentation Testing Shows Reduced Stiffness In Underloaded Tibial Cartilage In A Porcine Intra-articular Fracture Model

Dominic Rivas; Joshua E. Johnson; Maxwell Sakyi; Marc Brouillette; Jessica E. Goetz

Poster No. 1872

Intra-Articular Tat-Cre-Mediated Deletion Of Lats1/2 Induces Joint Pain And Synovial Dysfunction

Elizabeth R. Bernstein; Georgios Kotsaris; Gabriella Garza; Brett Croen; Joel Boerckel; Nathaniel Dymont; Robert Mauck

Poster No. 1873

Initial Cell Seeding Density Determines The Heterogeneous Architecture And Nutrient Gradients In Human Chondrocytes Spheroids

Yaqian Sun; Jian Chen; Jinghui Sun; Dustin Muller; Haiyang Ma; Hanmei Dong; Brooke Damon; Abirami Soundararajan; Nasim Cheraghi; Jiabin Chai; Shuchun Sun; Shangping Wang; Peng Chen; Hai Yao

Poster No. 1874

Short-term Mechanical Stimulation Modulates Young And Aged Human Articular Chondrocyte Redifferentiation

Ruxin Yang; Sriranjani Seshadri; Weiping Li; Kiera Downey; Cheri Deng; Rhima Coleman

Poster No. 1875

Identification Of Stage-specific Molecular Pathways Contributing To The Onset Of Osteoarthritis In A Rabbit Fai Model.

Takuma Maeda; Tomoyuki Kamenaga; Tomoyuki Matsumoto; Shinya Hayashi; Naoki Nakano; Yuichi Kuroda; Masanori Tsubosaka; Kensuke Wada; Akira Saitoh; Shotaro Araki; kohei motono; Toshiki Kitamura; Takuma Hayashi; Ryosuke Kuroda

Monday, March 30, 2026

10:00 AM - 5:00 PM

Room #: Hall A

PS2-166 Cartilage and Synovium - Structure, Function and Mechanics

Poster No. 1876

Acute Cartilage Compression And Recovery In A Cadaveric Joint Model Of Simulated Standing And Walking

Tejus Surendran; Axel Moore

Poster No. 1877

Changes Of Loaded T1p And T2 Outcomes Following Partial Meniscectomy

Sean Letendre; Erin R. Leatherman; Kalle Chastain; Jack Consolini; Scott Rodeo; Suzanne Maher; Matthew F. Koff

Poster No. 1878

Region-Specific Changes In Femoral And Tibial Cartilage Thickness In Individuals With Lateral Discoid Meniscus: A Large-Scale Analysis Of 2,796 Knee MRI's

Mahdi Aghaalikhani; Mack Hurley; Bia Brook; Alexandra Santos; Nazgol Tavabi; Ata Kiapour; Mohammadreza Movahhedi

Poster No. 1879

The Effect Of Tissue Composition And Maturity On Rolling Versus Sliding Behavior In The Knee

Vincent Sise; Suzanne Maher; Tony Chen

Poster No. 1880

Ablation Of Type III Collagen Disrupts The Establishment Of Various Hyaline Cartilage Tissues During Postnatal Growth

Yuchen Liu; Tiffany Wu; Siyan Li; Sara F. Tufa; Mingyue Fan; William Yen; Douglas R. Keene; Robert Mauck; Susan Volk; Lin Han

Poster No. 1881

The Capsuloligamentous Complex Is A Key Inducer Of Cartilage Degeneration In The Rat Cuff Tear Arthropathy Model

Kohei Uekama; Tomohiro Iuchi; Toshiro Ijuin; Hiroki Tawaratsumida; Takayuki Ide; Kento Shimano; Yusuke Masuda; Shingo Maeda; Noboru Taniguchi

Monday, March 30, 2026

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Room #: Hall A

PS2-167 Cartilage and Synovium - Treatment and Therapeutics

Poster No. 1882

The Effects Of Hyaluronan Synthase 2(hs2) Gene Transfection In A Mouse Model Of Knee Osteoarthritis

Keita Shimizu; Shinya Ishizuka; Sei Fujii; Takefumi Sakaguchi; Takafumi Mizuno; Kazuki Yoshida; Ryosuke Sugimoto; Shiro Imagama

Poster No. 1883

Can A 3d Printed Nanochon Chondral Implant Result In Repair Tissue Grossly, Histologically And Biomechanically Improved Compared To Empty Defects In Full Thickness Cartilage Lesions?

Charlotte K. Barton; Katie A. Seabaugh; Benjamin Gadowski; Kevin Labus; Ben Holmes; Nathan Castro; Mike Hawes; Brad Nelson; Laurie Goodrich

Poster No. 1884

Bacteriophage Communities In Osteoarthritic Joints

Aleksander Szymczak; Cindy Brawner; Nicholas Hanebutt; Gabriella Dyson; Montana Barrett; Prathiba Dube; Elias Cherian; Padmaja Mehta-D'souza; Matlock Jeffries

Poster No. 1885

Intraperitoneal Human Adipose-derived Stromal Vascular Fraction Suppresses Synovial Inflammation And induces An Increase in Splenic Tregs In A Mouse Cia Model

Takuma Maeda; Tomoyuki Matsumoto; Sinya Hayashi; Naoki Nakano; Yuichi Kuroda; Masanori Tsubosaka; Kensuke Wada; Akira Saitoh; Shotaro Araki; kohei motono; Kitamura Toshiki; Takuma Hayashi; Hideki Iwaguro; Satoshi Sobajima; Ryosuke Kuroda

Poster No. 1886

Anabolic And Chondroprotective Actions Of Platelet-derived Extracellular Vesicles On Osteoarthritic Chondrocytes

Yuki Fujie; Masaya Nakajo; Taiki Tokuhira; Yuki Ogawa; Ryota Suzuki; Ebata Taku; Daisuke Takahashi; Tsutomu Endo; Norimasa Iwasaki; Alaa Terkawi

Poster No. 1887

Suramin Suppresses Synovial Fibrosis In Osteoarthritis: Evidence Of Gsk3 β Involvement

Shih Huang; Po-Chih Shen; Cheng-Chang Lu; Zi-Miao Liu

Poster No. 1888

Human Umbilical Cord Mesenchymal Stem Cell-derived Exosomes Ameliorate Knee Function And Osteoarthritis Progression In A Pre-clinical Animal Model

Chung-Hwan Chen; Sung-Yen Lin; Yi-Shan Lin; Shu-Chu Chuang; Yi-Wen Kuo; Cheng-Jung Ho; Kai-Hsuan Wang; Wei-Cheng Tsai; Zhi-Xiang Li; Wan-Jung Lin; Yi-Ju Hsieh; Tzou-Yien Lin

Poster No. 1889

IGFBP7 Secreted From Senescent Chondrocyte Exacerbates Osteoarthritis Progression Via Inducing Paracrine Senescence

yujeong Lee; Hyun Cheol Bae; Gun Hee Cho; Byung Sun Choi; Hee Jung Park; HaRu Yang; Sun Young Wang; youjung kim; Hyuk-Soo Han

Poster No. 1890

Suramin Enhances Wif1 Expression To Suppress Inflammasome Signaling In Osteoarthritis

Po-Chih Shen; ShihHao Huang; Zi-Miao Liu; Cheng-Chang Lu

Poster No. 1891

Preclinical Evaluation Of Glutathione-high Mesenchymal Stem Cells For Osteoarthritis Treatment

Sun Young Wang; yujeong Lee; Hyun Cheol Bae; Gun Hee Cho; Byung Sun Choi; HaRu Yang; Hyuk-Soo Han

Poster No. 1892

Advancing Osteoarthritis Treatment: Translational Insights From HYADD[®] 4-based Combination Therapies In A Postmenopausal Rat Model

Anna Scanu; Roberto Luisetto; Mauro Pavan; Cristian Guarise; Chiara Giraudo; Francesca Galuppini; Vanni Lazzarin; Gianmaria Pennelli; Maddalena Zangari; Devis Galessio; Stefano Masiero

Poster No. 1893

Directing The Chondro-fibro Axis With Cellular Contractility For Volumetric And Functional Cartilage Repair

Maddie Hasson; Hanna Solomon; Samir Chihab; Aniya Hartzler; Alan Zhao; Jarred Kaiser; Jason Bariteau; Jay M. Patel

Poster No. 1894

Inhibition Of Tumor Necrosis Factor Alpha Protects Against Pain-related Behaviors In A Mouse Model Of Osteoarthritis

Lauryn A. Braxton; Kristin L. Lenz; Collin P. Murray; Kaitlyn A. Strandberg; Arin K. Oestreich; Farshid Guilak

Poster No. 1895

Therapeutic Effect Of Vitamin E Nanosomes In Adipose-derived Stem Cells Against Oxidative Stress

Shona Gordon; Ronald Throop; Joshua Jennings; Youngeun Choe; Hongsik Cho

Poster No. 1896

Ginger-derived Extracellular Vesicles Inhibit The Progression Of Osteoarthritis

Dan Moriwaki; Tomoyuki Nakasa; Hiroki Kaneta; Shigeru Miyaki; Nobuo Adachi

Poster No. 1897

Stabilizing The Microfracture Clot With A Tissue-penetrating Hyaluronic Acid Hydrogel Improves Chondrogenesis And Defect Fill In A Minipig Model

Hanna Solomon; Maddie Hasson; Samir Chihab; Colleen Oliver; Robert Mauck; Jason Bariteau; Jay Patel

Poster No. 1898

Dose-dependent Analysis Of Fda-approved Compounds For Lubricin Stimulation In A 3d Human Chondrocyte Model Of Post-traumatic Osteoarthritis

Najla Adel Saleh; Swathi Menon; Rachel Kemp; Aditi Thorat; Chloe Watson; Janapriya Vijayakumar; Thomas Kean

Poster No. 1899

Characterization Of Human Bone Marrow Aspirate Concentrate Derived Mesenchymal Stem Cells And The Effect Of Commonly Used Clinical Drugs On Their Viability And Proliferation

Xubo Niu; Jackson Woodrow; Jeffrey Mun; Stephen Gillinov; Nathan Cherian; Michael Dean; Jenna Galloway; Scott Martin

Poster No. 1900

Irisin Attenuates Mitochondrial Dysfunction By Regulating Biogenesis In Human Osteoarthritic Chondrocytes In Vitro

Giuseppina Di Giacomo; Veronica Tilotta; Luca Ambrosio; Claudia Colaiacomo; Maria Zingariello; Francesca Arciprete; Viola Velardi; Sara Baldelli; Vincenzo Denaro; Rocco Papalia; Gianluca Vadala

Poster No. 1901

Anakinra Protects Against Mechanical Degradation Of Articular Cartilage In An In Vitro Inflammatory Environment

Emily S. Cook; Brendan D. Stoeckl; Austin C. Jenk; David R. Steinberg; Robert L. Mauck

Poster No. 1902

Patient-Reported Outcomes After Microfracture With And Without Biologic Augmentation For Talar Osteochondral Defects

Nandini A. Lal; Edward C. Webb; Julia Remlinger; Bernard Burgesson; Amgad M. Haleem; John Y. Kwon; Soheil Ashkani-Esfahani; Gregory R. Waryasz; Lorena Bejarano-Pineda

Poster No. 1903

Withdrawn

Poster No. 1904

The Effect Of Amniotic Fluid Stem Cell Conditioned Media (afs-cm) On Inflammation, Oxidative Stress, And Cellular Senescence In End-stage Osteoarthritic Chondrocytes

Xue Ma

Poster No. 1905

STAT1 Inhibition During In Vitro Expansion Preserves Chondrocyte Phenotype And Matrix Forming Capacity

Ellen Y. Zhang; Yu-Chung Liu; Sang Hyun Lee; Yuna Heo; Melike Lakadamyali; Robert L. Mauck; Inkyung Jung; Claudia Loebel; Su Chin Heo

Poster No. 1906

Deploying Ipsc-derived M2 Macrophages To Mitigate Ptoa In 2d, 3d And In Vivo Models

Lea Zila; Nadia Mahmoudi; Julia Sheyn; Anoushka Prasad; Jacob Wechsler; Sarah Mohyeddinipour; Dean Roell; Mino Bastani; Mia Orr; Andrew Spitzer; Sean Rajae; Melissa Chavez; Namdev More; Rachel Lev Gur; Wafa Tawackoli; Dmitriy Sheyn

Poster No. 1907

Use Of Mitochondrial Transfer To Increase Rabbit Articular Cartilage Explant Viability

Sophie B. Weisman; Henintsoa Fanjaniaina Andriamifidy; Yalnaz Mohasin; Daniel Grande

Poster No. 1908

The Therapeutic And Genetic Benefit Of Gpnmb In Osteoarthritis

Trinity A. Kronk; Alexander Powell; Zachary Oatley; Abdelrahman Boghdady; Christian Mineo; Hakem Altawil; Adam Sanchez; Shahabeddin Yazdanpanah; Anas Bakdali; Gabrielle Robinson; Layth Khawaja; Emily Arellano; Bryce Pember; Kennedy Nkachukwu; Michael DiSabato; Sharon Usip; Hope Ball; Fayez Safadi

Poster No. 1909

A Multi-vector Approach To Treating Post-traumatic Osteoarthritis Using ScAAV2 IL-1ra/IGF-I In An Equine Preclinical Model

Jaiden H. Oropallo; Parvathy Thampi; Jennifer N. Phillips; Myra F. Barrett; Kathryn A. Seabaugh; Lyndah Chow; Ann M. Hess; Lynn M. Pezzanite; Lester Suarez-Amaran; Constance R. Chu; Wayne McIlwraith; Richard J. Samulski; Brad B. Nelson; Laurie R. Goodrich

Poster No. 1910

The Influence Of Demographic Factors On Bone Marrow Aspirate Concentrate Volume Extracted From The Body Of The Ilium

Scott D. Martin; Brandon J. Allen; Jeffrey S. Mun; Rachel L. Poutre; Srish S. Chenna; Stephen M. Gillinov

Poster No. 1911

Localized Gene Therapy For Prolonged Anti-inflammatory Treatment To Prevent Or Delay Post-traumatic Osteoarthritis In An Equine Model

Jaiden H. Oropallo; Parvathy Thampi; Jennifer N. Phillips; Myra F. Barrett; Kathryn A. Seabaugh; Lyndah Chow; Ann M. Hess; Lynn M. Pezzanite; Lester Suarez-Amaran; Wayne McIlwraith; Richard J. Samulski; Brad B. Nelson; Constance R. Chu; Laurie R. Goodrich

Poster No. 1912

Therapeutic NAC-delivering Microgels Maintain Chondrocyte Viability After Cartilage Impact Injury

Austin C. Jenk; Brendan Stoeckl; Emily Cook; Emily Sharp; Eric Schweppe; Liane Miller; Sarah Gullbrand; Robert Mauck

Poster No. 1913

Rabbit Versus Rat Mitochondria Transfer To Increase Rabbit Articular Cartilage Explant Viability

Sophie B. Weisman; Henintsoa Fanjaniaina Andriamifidy; Yalnaz Mohasin; Daniel A. Grande

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10:00 AM - 5:00 PM

Room #: Hall A

PS2-168 Multi-Organ System Crosstalk

Poster No. 1914

Characterization Of Adipose Depot Tissue Transcriptome In Response To Sex And Aging

Hunter Hasskamp; Stephen A. Martin

Poster No. 1915

Cortical Signatures Of Chronic Pain After Rotator Cuff Injury In Mice

Sonali Feeley; Karnika Bhardwaj; Madison Jewell; Alex Youn; Xuhui Liu; Brian Feeley; Allan I. Basbaum; Jarret AP Weinrich

Poster No. 1916

The Retrotransposon/inflamaging Axis Governs Common Gait Disturbance In Alzheimer'S Disease And Osteoarthritis Mouse Models

Nathan E. Meyer; Albert Wu; Adam Fogel; Jing Ding; Yajun Liu; Qian Chen

Poster No. 1917

Cross Compartment Proteomic Profiling Of Ischemia Reperfusion Injury

Nesa Milan; Ryan Sadjadi; Luke Sang; Alex Brown; Aboubacar Wague; Michael Davies; Xuhui Liu; Brian Feeley

Poster No. 1918

Modeling OA In Vitro: Comparison Of RNA Expression Between Human Induced Pluripotent Stem Cell Derived Sensory Neurons And Human Dorsal Root Ganglia

Daniel B. Hoffman; Abdelhak Belmadani; Nirupa D. Jayaraj; Dongjun Ren; Richard J. Miller; Anne-Marie Malfait; Rachel Miller

Poster No. 1919

Association Between Carotid Atherosclerosis And Vertebral Metabolic Activity As Assessed By 18F-NaF PET/CT

Benjamin Dosan; Talha Khan; Gurjant Sekhon; Faatima Khan; Shiv Patil; William Lee; Darshil Patil; Ondrej Fanta; Poul Flemming Højlund-Carlsen; Abass Alavi

Poster No. 1920

Dlx5 Orchestrates Chondrogenic Stability, Hypertrophy, And Catabolic Signaling In Bm-msc

Jay Trivedi; Salomi Desai; My Ahn Nguyen; Chathuraka Jayasuriya

Poster No. 1921

Muscle-tendon Crosstalk In A Duchenne Muscular Dystrophy Rat Model

Pooja H. Chainani; Nazanin Nafisi; Maria Virginia Velasquez-Hammerle; Maria Collado-Exposito; Gayane Badalyan; Noemi Mesropian; Angelica Megdanis; Elizabeth Vickery; Ara Nazarian

Poster No. 1922

Novel, Rapid AI-Based Behavioral Phenotyping Identifies Effective Analgesics For Chronic Pain After Rotator Cuff Injury In Mice

Alex Youn; Leila Hennessy; Mia Schraith; Sankalp Sharma; Sanvi Sharma; Aboubacar Wague; Nesa Milan; Miguel Lizarraga; Monica Moore; Allan Basbaum; Xuhui Liu; Brian Feeley; Jarret Weinrich

Poster No. 1923

Peripheral And Central Nervous System Markers Of Neuropathic Pain In A Chronic Rotator Cuff Injury Model

Alex Youn; Aboubacar Wague; Sankalp Sharma; Hiroyori Fusagawa; Nesa Milan; David Darevsky; Hanzhi Zhang; Sanvi Sharma; Mia Schraith; Monica Moore; Joao Braz; Jarret Weinrich; Allan Basbaum; Xuhui Liu; Brian Feeley

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PS2-169 Hip and Knee Arthroplasty - Clinical Outcomes

Poster No. 1924

Are There Differences In Patient-reported Outcomes Based On Patellofemoral Resurfacing In Primary Total Knee Arthroplasty? A Propensity Matching Study

Isaiah Freeman; Muhammad Hamza Ilyas; Carlo Mannina; Pengwei Xiao; Hahn Kang; Zhijun Li; Michelle Shimizu; Oh-Jak Kwon; Sina Afzal; William Sampson; Oh-Joon Kwon; Margaret Arthur; Young-Min Kwon

Poster No. 1925

How Do Patient-perceived Outcomes Compare In Obese Patients Undergoing Primary Total Knee Arthroplasty Versus Unicompartmental Knee Arthroplasty?

Carlo Mannina; Muhammad Hamza Ilyas; Oh-Jak Kwon; Isaiah Freeman; Pengwei Xiao; Michelle Shimizu; Zhijun Li; William Sampson; Oh-Joon Kwon; Hahn Kang; Margaret Arthur; Sina Afzal; Young-Min Kwon

Poster No. 1926

Preservation Of Joint Line Obliquity (jlo) May Influence Short-term Outcomes, But Coronal Alignment Changes Do Not Affect Three-year Results After Mechanical Alignment Tka

Keisuke Matsukura; Satomi Abe; Kazuya Ichihara; Hiroshi Ito

Poster No. 1927

The Use Of Wearable Devices To Assess Sleep In Total Knee Arthroplasty

Robert R. Hall; Shao-Hsien Liu; Hua Zheng; David Ayers

Poster No. 1928

Outcomes Of Kinematic Alignment Total Knee Arthroplasty In Valgus Knee Deformity

Jakub Gocal; Margaret Grossman; Pranav Krishnan; Nicholas Brown

Poster No. 1929

Impact Of Hiv On Postoperative Outcomes And Survival After Total Joint Reconstruction: A Multi-institutional Propensity-matched Cohort Study

Kaitlin Nunn; Ruth Simpson; Emmerson McGowan; Zbigniew Gugala

Poster No. 1930

Admission Time Impact On Hip Fracture Outcomes: Retrospective Cohort Study In A Rural Hospital Setting

Jacob Barnard; Yousef Sarameh; Madison Gackle; Kiratpreet Sraa; Jacqueline Neff; Tyrus Nelson; Diana Lalitsasivimol; Anthony Santarelli; John Ashurst

Poster No. 1931

Development And Interim Validation Of A Novel Post-total Knee Arthroplasty Patient-reported Outcome Measure

Swaneet Jha; Stephen Lyman; Claude Regis; Julianna Villella; David Shamritsky; Chinanuekpere Ezeala; Arian Alhosseini; Carl Imhauser; Brian Chalmers

Poster No. 1932

Older Patients Experience Non-inferior One-year Functional Outcomes Following Cementless Primary Total Knee Arthroplasty Compared To Younger Patients

Shlok Patel; Khaled Elmenawi; Shujaa Khan; Ignacio Pasqualini; Chao Zhang; Anabelle Visperas; Robert Molloy; Matthew Deren; Nicolas S Piuze

Poster No. 1933

GLP-1 Receptor Agonist Use Is Associated With Superior Outcomes In Hip Hemiarthroplasty Patients With Diabetes

John Slevin

Poster No. 1934

Comparison Of Two Primary Cemented Knee Designs (a Gradually Reducing Radius Vs. A Single Radius Design) For Manual Total Knee Arthroplasty - A Large Database Study

Anshu Gupta; Ilya Bendich; Vanessa Vazquez; Jill Ruppenkamp; Kelly Francher; Rodrigo Diaz

Poster No. 1935

Travel Distance, Rapt Score, And Surgery Start Time Are Associated With Later Discharge After Total Joint Arthroplasty

Marisa Brito; Kevin Y. Heo; Elizabeth Reiger; Destiny Paige; Max McCall; Nigam Sheth; Omar Syed; Jacob Wilson; Ajay Premkumar

Poster No. 1936

Early Walking, Lasting Benefits: Postoperative Day 1 Ambulation Distance Predicts One-Year Functional Outcomes After Total Hip Arthroplasty

William A. Stone; Alexander Burbelo; A. Blake Huffman; Daniel H. Silcox; Andrew Murphy; Amit Singla; Jovon Cobbs; Matthew Bullock

Poster No. 1937

Evaluating Patient Outcomes In Evolving Orthopedic Surgical Treatments: A Retrospective Chart Study

Carsten P. Schmidt; Hardeep Tiwana; Dolgov Vadim; Miguel Schmitz

Poster No. 1938

Functional Recovery After Revision Total Knee Arthroplasty

Victoria R. Wong; Michael F. Shannon; Andrew J. Frear; Adrian Santana; Samuelson Osifo; Richard Chao; Sara Piva; Kenneth Urish

Poster No. 1939

Preoperative Contralateral Joint Pain And/or Back Pain Are Associated With Worse Baseline PROMs And Failing To Achieve The 20-point Substantial Clinical Benefit For KOOS-JR After Tka: Implications For The New CMS PROMs Policy

Shlok Patel; Ahmed Emara; Khaled Elmenawi; Shujaa Khan; Yuxuan Jin; Anabelle Visperas; Viktor Krebs; Robert Molloy; Matthew Deren; Nicolas S Piuze

Poster No. 1940

Closing The Satisfaction Gap: Medial UKA And Cruciate-retaining TKA Yield Comparable 1-year Patient Reported Outcome Measures (PROMs)

Shlok Patel; Khaled Elmenawi; Shujaa Khan; Lakshmi Gudapati; Chao Zhang; Anabelle Visperas; Matthew Deren; Nicolas S Piuze

Poster No. 1941

Early Clinical Outcomes Of Medial Congruent Versus Posterior Stabilized Inserts In Robot-assisted Total Knee Arthroplasty

Yohei Naito; Gai Kobayashi; Shine Tone; Masahiro Hasegawa

Poster No. 1942

Differential Outcomes Of Total Knee Arthroplasty Inpatients With Personality Disorders Vs. No Personality Disorders

Peter Chebi; Majd Mzeihem; John Alvarez; Albert Rechenmacher; Alfonso Mejia; Mark Gonzalez

Poster No. 1943

Differential Outcomes Of Total Knee Arthroplasty In Patients With Cluster A Versus Cluster B Versus Cluster C Personality Disorders

Peter Chebi; John Alvarez; Majd Mzeihem; Albert Rechenmacher; Alfonso Mejia; Mark Gonzalez

Poster No. 1944

Intraosseous Vancomycin Vs Intravenous Vancomycin In Unicompartmental Knee Arthroplasty

Kwan J. Park; Kyle M. Rako; Andrew S. Murtha; Thomas C. Sullivan; Anthony Eshareturi; Terry A. Clyburn; Timothy S. Brown

Poster No. 1945

Predicting Hospital Length Of Stay After Total Knee Arthroplasty Using Machine Learning: Insights From The UC Irvine Mover Dataset

Jawaad Javaid; Zuhyr Khan; Abdullah Uddin

Poster No. 1946

Impact Of Anxiety And Depression On TKA Postoperative Outcomes

Joshua Taylor; Mathew Mendoza; Dallas Bennett; Bryce Palumbo; Ugo Ihekweazu; Corey Hryc

Poster No. 1947

Impact Of The Surgical Workflow And Technology Change On Early Clinical Outcomes In Total Knee Arthroplasty

Prudhvi Tej Chinimilli; Laurent Angibaud; Amaury Jung; Corey A. Jackson

Poster No. 1948

Intraosseous Vancomycin For Primary Total Knee Arthroplasty Is Associated With A Lower Rate Of Postoperative Acute Kidney Injury Compared To Intravenous Vancomycin

Kwan J. Park; Justin O. aflatooni; Thomas C. Sullivan; Austin E. Wininger; Timothy S. Brown; Terry A. Clyburn; Stephen J. Incavo

Poster No. 1949

Assessing Predictive Accuracy Of 2-dimensional Digital Templating In Fluoroscopic-guided Direct Anterior Approach Total Hip Arthroplasty

Jonathan Liu; Simbarashe J. Peresuh; Noah Gilreath; Joseph Nassar; Mohammad Daher; Jeffrey Okewunmi; Janine Molino; Michel A. Arcand; Valentin Antoci; Derek Jenkins

Poster No. 1950

Intraoperative Factors And Risk Of Manipulation Under Anesthesia After Primary Total Knee Arthroplasty

Sean Rodriguez; Ethan Mickelson; Michael Farris; Siyuan Liu; Ankit Choudhury; Michael M. Decker; John C. Neilson; John F. Nettrour

Poster No. 1951

Restoring Constitutional CPAK Phenotype Enhances Early Functional Recovery After Total Knee Arthroplasty: A Prospective In-Office Gait-Analysis Study

Carmelo Burgio; Karlos Zepeda; Shrey Vachhani; TSION Yared; David Mayman; Seth Jerabek; Peter Sculco; Fernando Quevedo Gonzalez; Eytan Debbi; Jonathan Vigdorichik

Poster No. 1952

Socioeconomic Disadvantage Does Not Modify The Impact Of Preoperative Opioid Use And Psychiatric History On Stiffness After Primary Total Knee Arthroplasty

Sean Rodriguez; Ethan Mickelson; Ankit Choudhury; Michael M. Decker; John C. Neilson; John F. Nettrour

Poster No. 1953

Withdrawn

Poster No. 1954

Optimizing Anesthesia Workflow: When To Switch From Spinal To General Anesthesia In A High-flow Primary Hip And Knee Arthroplasty Program

Paul Beaulé; Matej Juric; Ervis Musa; Sophie Ba; Benjamin Sohmer; Ariane Parisien

Poster No. 1955

Withdrawn

Poster No. 1956

A Novel Technique For Uka Via Transverse Skin Incision With Subvastus Approach And Robotic Navigation

Jonggu Shin; Daniel Driscoll; Ittai Schichman; Johannes Herold; Ryann Davie; Peter Sculco

Poster No. 1957

Withdrawn

Poster No. 1958

Rising Body Mass Index Increases Early Complications Rates Following Aseptic Revision Total Knee Arthroplasty

Michael F. Shannon; Victoria Wong; Andrew J. Frear; Ryan T. Lin; Adrian Santana; Elizabeth Plakseychuk; Kenneth L. Urish

Poster No. 1959

Patient And Surgical Factors Associated With Achieving The Medicare-driven 20-point Substantial Clinical Benefit Threshold In Patient-reported Outcomes

Jonathan Liu; Noah Gilreath; Mohammad Daher; Thomas Barrett; Roy Aaron; Valentin Antoci

Poster No. 1960

Does Implant Choice Affect Early Range Of Motion Following Total Knee Arthroplasty? A Retrospective Comparative Study

Bryan T. Soth; Shahabeddin Yazdanpanah; Emmett M. O'Malley; Harry Haran; Spencer M. Lee-Rey; Michael L. Swank

Poster No. 1961

Survivorship Of Cemented Versus Cementless Metal-on-metal Hip Resurfacing: A Match-cohort Analysis At Minimum Five Years

Paul Beaulé; Edoardo Viglietta; Simone Fenucci; Andrew Tucker; Ariane Parisien; George Grammatopoulos

Poster No. 1962

Comparative Outcomes Of Closed Manipulation Under Anesthesia, Arthroscopic Arthrolysis, And Open Arthrolysis For Post-tka Stiffness: A National Claims Analysis

Ivette Chen; Joseph Cavataio; Braden de Lanzac; Timothy Waters; William F. Sherman

Poster No. 1963

Withdrawn

Poster No. 1964

Total Hip Arthroplasty In Patients With Morquio's Syndrome

Abigail Padilla; Adrian Lin; Sophavy Vermillion; Michael Colello; Brandon Gettleman; Alexander Christ

Poster No. 1965

Return To Driving After Anterior Total Hip Arthroplasty

Yehuda Masturov; William Hogan; Steven Regal; Michael Sybert; Jon Hammerstedt

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PS2-170 Hip and Knee Arthroplasty - Complications/Infections

Poster No. 1966

Surface Imprinting To Enhance Antibiotic Delivery In Bone Cement

David Tran; Hugh Jones; Mark Coggins; Nathan Rogers

Poster No. 1967

Synovial Macrophage Profiles In Severe Knee Osteoarthritis: Does Underlying Obesity Matter?

David C. Landy; Franco M. Sabatini; Nubia Rodrigues; Samuel D. Mounce; Kirsten Scoggin; Bruno Menarim

Poster No. 1968

Temporal Quantification Of Infection In A Preclinical Prosthetic Joint Infection Model

Erik P. Rader; Elizabeth Stewart; Nour Bouji; Matthew J. Dietz

Poster No. 1969

Exploring The Utilization Of Curcumin-Loaded Gel Polymers To Minimize The Risk Of Prosthetic Joint Infections (PJI) In Ortho-Implants

Xochitl B. Sedano; Mareeswari Paramasivan; Mathew Mathew; Rukshini Venkatesan Bharathi; Mark Barba; Mohammad Fazle Alam

Poster No. 1970

Postoperative Outcomes Of Total Knee Arthroplasty In Patients With Alcohol Use Disorders: A Retrospective Propensity-matched Analysis

Christopher Allender; Yida Liu; Senthil Sambandam

Poster No. 1971

Do Disease Modifying Anti Rheumatic Drugs Impact Complication Rates After Total Hip Arthroplasty In Patients With Inflammatory Arthropathies?

Ahmadreza Nezameslami; Bryce Hrudka; Bailey Ross; David Mathews; Jacob Michael Wilson; Ajay Premkumar

Poster No. 1972

The Impact Of Disease Modifying Anti Rheumatic Drugs Effects On Complication Rates After Total Knee Arthroplasty In Inflammatory Arthropathies

Ahmadreza Nezameslami; Bryce Hrudka; Bailey Ross; David Mathews; Jacob Michael Wilson; Ajay Premkumar

Poster No. 1973

Effect Of Specialized Care Teams On Post-operative Complications Following Direct Anterior Total Hip Arthroplasty

Victoria C. Tappa; Jacob M. Elkins; Cale Dobson

Poster No. 1974

High-Throughput Screen Of 100 Epigenetic Compounds In A TGF- β 1-Mediated Model Of Primary Human Knee Fibroblast Differentiation

Oliver B. Dilger; Mason F. Carstens; Cole E. Bothun; Afton K. Limberg; Hassan Ahad; Britta Stans; Daniel J. Berry; Joaquin Sanchez-Sotelo; Mark E. Morrey; Roman Thaler; Amel Dudakovic; Matthew P. Abdel

Poster No. 1975

Perioperative Albumin In Tka: Age And Baseline As Dynamic Predictors

Yoshinori Ishii

Poster No. 1976

Biomechanical Comparison Of Intra- Versus Extra-incisional Pin Placement In Robotic Total Knee Arthroplasty: A Cadaveric Study

Max L. Lee; Matthew Song Peng Ng; Ethan Kee Ern Tew; Alexander Shao-Rong Pang; Danakkrisna Vachalam; Amit Ramruttun; Siaw Meng Chou; Glen Zi Qiang Liao

Poster No. 1977

Obesity Plus Protein-calorie Malnutrition Increases Risk Of 90-day Postoperative Complications Following Total Joint Arthroplasty: A Propensity-matched Analysis

Kyle Stump; Ryan Blake; Nicolas Echeverria; Matthew Lorei

Poster No. 1978

A Second Failure Mode In A Recalled Tka: Femoral Debonding Due To Reduced Surface Roughness

Sara E. Sacher; Katherine E. Mallett; Aarti A. Shenoy; Timothy M. Wright; Geoffrey H. Westrich

Poster No. 1979

Smoking History And General Anesthesia Are Associated With Increased 90-day Readmission Following Total Knee Arthroplasty: A Retrospective Cohort Study

Alexander Burbelo; Jovon Cobbs; A. Blake Huffman; Adel Kanaan; Malik Khan; Liam Cleary; Amit Singla; Matthew Bullock

Poster No. 1980

90-day Postoperative Complications In Anemic THA Patients: A Sex-stratified Analysis

Brendan Layton; Dilan Prasad; Dhara Patel; Saqib Rehman

Poster No. 1981

Total Joint Arthroplasty Outcomes In Patients With Multiple Myeloma And Monoclonal Gammopathy Of Undetermined Significance

Jacob D. Kodra; Austen Schweinert; Abdullah Memon; Logan Andryk; Bryce Hrudka; David M. King

Poster No. 1982

Ephedrine Use During Total Joint Arthroplasty Is Associated With Increased Risk Of Periprosthetic Joint Infection

Alexander Burbelo; Trace Clark; Salvia Zafar; Marcus Voigt; Brett Lowden; A. Blake Huffman; Christopher Potts; Amit Singla; Matthew Bullock

Poster No. 1983

Long-Term Complications Of Total Knee Arthroplasty In Patients With Prior Radiation Therapy: A 10-Year Analysis

Jacob D. Kodra; Ankit Choudhury; Scott Fong; Meena Bedi; David M. King

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PS2-171 Hip and Knee Arthroplasty - Implant Materials, Fixation and Wear

Poster No. 1984

Comparison Of Patient Reported Outcomes Incemented And Cementless Unicompartmental Knee Arthroplasty: A Propensity Matched Analysis

Muhammad Hamza Ilyas; Carlo Mannina; Isaiah Freeman; William Sampson; Oh-Jak Kwon; Hahn Kang; Pengwei Xiao; Zhijun Li; Oh-Joon Kwon; Michelle Shimizu; Margaret Arthur; Sina Afzal; Young-Min Kwon

Poster No. 1985

The Use Of Perimeter Screws To Reduce Cup Micromotion And Increase Fixation Strength In The Presence Of An Acetabular Defect?

Dustin R. Whitaker; Aaron Matyas; Rafael Sierra

Poster No. 1986

What Insights Can Computational Analysis Provide On Hinged TKR Wear?

Chase Maag; Nathan Reeder; Lauren A. Ferris

Poster No. 1987

Bone Ongrowth In Modern Cementless Tibial Baseplates With Three Distinct Porous Coatings

Julia P. Hochstatter; Jennifer L. Wright; Robert A. Burnett; Robin Pourzal; E. Bailey Terhune; Deborah J. Hall

Poster No. 1988

A Simplified Method For In Vitro Patella Durability Evaluation

Zachary Bryan; Christopher Gigliotti; Luis Alvarez

Poster No. 1989

Durability Testing Of A Cementless Patella With A Chemically Crosslinked Uhmwpe/vitamin-e

Luis Alvarez; Christopher Gigliotti; Zachary Bryan; Bo Gao; Keith Wannomae; Orhun Muratoglu

Poster No. 1990

Cementless Tibial Baseplates Can Achieve Stable Fixation Even For Low Bone Mineral Density

Fernando Quevedo Gonzalez; Matthew Teeter; Joseph Lipman; Peter Sculco; Karlos Zepeda; Tsion Yared; Carmelo Burgio; Himani Kolli; Cynthia Kahlenberg; Timothy Wright; David Mayman; Jonathan Vigdorchik; Eytan Debbi

Poster No. 1991

Greater Tibial Varus And Femoral Valgus Increase The Knee Adduction Moment During Single Leg Stance In Tka Patients

Fernando Quevedo Gonzalez; Joseph Lipman; Peter Sculco; Karlos Zepeda; Carmelo Burgio; Tsion Yared; Cynthia Kahlenberg; Timothy Wright; David Mayman; Jonathan Vigdorchik; Eytan Debbi

Poster No. 1992

A Novel Intrapelvic Tha Technique Accurately Positions Components And Maintains Tissue Tension

Clarisse Zigan; Alexander Anatone; Kate Meyers; Grace Krebs; Timothy Wright; Eytan Debbi; Douglas Padgett; Fernando Quevedo Gonzalez

Poster No. 1993

Withdrawn

Poster No. 1994

A Novel Test Method To Evaluate The Dynamic Performance Of Tibial Insert-Baseplate Locking Mechanism

Gregory Pepe; Julia Greenspan; Jordan Kayal; Ronald Connors-Ehlert; Ananth Gopalakrishnan

Poster No. 1995

Femoral Component Osseointegration Varies With Polyethylene Liner Constraint In Cementless Total Knee Arthroplasty

Morgan G. Roegner; Julia P. Hochstatter; Jennifer L. Wright; E. Bailey Terhune; Robin Pourzal; Robert A. Burnett; Deborah J. Hall

Poster No. 1996

Evaluation Of Cadaveric And Synthetic Tibiae For Measuring Tibial Tray Micromotion In Cementless TKA

Daniele Marras; Kathryn Colone; Brian Haas; Chadd Clary

Poster No. 1997

Wear Comparison Of CoCr Femurs To TiN-coated Femurs

Kailey L. Fitzgerald; Geoffrey H. Westrich; Sally LiArno

Poster No. 1998

Correlation Between Tibial Cortical Thickness And Volumetric Bone Mineral Density To Inform Cementless Total Knee Arthroplasty Implantation

Karlos Zepeda; Matthew Booth; Tsion Yared; Carmelo Burgio; Michael Ast; David J. Mayman; Jonathan M. Vigdorich; Fernando Quevedo Gonzalez; Eytan Debbi

Poster No. 1999

Medial Stabilized Vs. Medial Congruent Vs. Posterior Stabilized: Comparing Newer And Traditional Liner Designs In Total Knee Arthroplasty

Karlos Zepeda; Edward Grabov; Tsion Yared; Carmelo Burgio; Katherine E Mallett; Brian Chalmers; Peter Sculco; Eytan Debbi

Poster No. 2000

Categorization Of Wear Patterns In Total Hip Arthroplasty HXLPE Bearings Using Machine Learning

Valerio Porrati; Elenora Cabai; Peter Wahl; Deborah Hall; Joshua Jacobs; Jonathan Gustafson; Robin Pourzal

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PS2-172 Hip and Knee Arthroplasty - Kinematics and Computational Modeling

Poster No. 2001

The Effect Of Range Of Motion Simulated With Three-dimensional Simulation Analysis On Anterior Dislocation After Total Hip Arthroplasty

Ryo Mitsutake; Hiromasa Tanino; Hiroshi Ito

Poster No. 2002

Does Femoral Sagittal Plane Curvature, J-Curve, Affect Performance Of Hinge Design?

Amit Mane; Lauren A. Ferris; Nathan Reeder

Poster No. 2003

Does Restoration Of The Trochlear Offset And Patella Thickness Affect Quadriceps Efficiency? A Cadaveric Biomechanical Analysis

Taylor A. Jones; Joshua Hancock; George R. Kolettis; Miguel Diaz; Peter Simon; Thomas Bernasek; Brian T. Palumbo

Poster No. 2004

Withdrawn

Poster No. 2005

The Impact Of Tibial Insert Constraint On Knee Stiffness In An Advanced Knee Simulator Model

Kevin Abbruzzese; Michael Dunbar; Yogesh Mittal; Jared Weir; Michael Mont; Sally LiArno

Poster No. 2006

Increased Anterior-Posterior Translation Differences During Level Walking In Medial Stabilized Total Knee Arthroplasty As Compared To Other Implant Designs

Lauren Gross; Tom Gale; Adam Almoukamal; Elizabeth Copp; Kenneth Urish; William Anderst

Poster No. 2007

Comparing Polyethylene Wear Debris From CoCr And TiN-coated Femoral Components

Kailey L. Fitzgerald; Geoffrey H. Westrich; Sally LiArno

Poster No. 2008

Comparative Analysis Of Contact Pressure Distribution In Conventional Vs. Robotic-assisted Unicompartmental Knee Arthroplasty: Insights From In Silico Modeling And Cadaveric Studies

Yeseop Park; Katherine Elbert; Jason Koh; Farid Amirouche

Poster No. 2009

Simma: A Single-camera Markerless Motion Capture System For Gait Analysis

Omid Safarzadeh; Reza Rezaeian; Santiago Lozano Calderon; Ali Kiapour

Poster No. 2010

The Influence Of Surgeon Impact Force, Material, And Angular Mismatch In The Contact Mechanics Of The Head-stem Modular Junction In Modern Total Hip Arthroplasty

Thomas Turinske; Steven P. Mell; Jonathan A. Gustafson; Brett R. Levine; Elizabeth B. Terhune; Hannah J. Lundberg

Poster No. 2011

Lipid Uptake In Uhmwpe Under Mechanical Loading: A Combined Numerical And Experimental Study

Isabella Paris; Peder Solberg; Robin Pourzal; Hannah J. Lundberg; Douglas W. Van Citters

Poster No. 2012

Comparing Intraoperative Robotic Measured Stability And Kinematics To Postoperative Fluoroscopic Assessment In Cruciate-Retaining TKA

Sean E. Higinbotham; Kendall M. Mulvaney; Cheryl A. Blackwood; Paul J. Rullkoetter; Clint B. Blackwood; Kevin B. Shelburne

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Room #: Hall A

PS2-173 Hip and Knee Arthroplasty - Robotics and AI

Poster No. 2013

No Minimal Clinically Important Difference In Patient-reported Outcomes In Obese Patients Undergoing Robotic And Manual Primary Total Hip Arthroplasty: A Propensity Matched Analysis

Isaiah Freeman; William Sampson; Oh-Joon Kwon; Muhammad Hamza Ilyas; Hahn Kang; Michelle Shimizu; Sina Afzal; Carlo Mannina; Zhijun Li; Oh-Jak Kwon; Pengwei Xiao; Margaret Arthur; Young-Min Kwon

Poster No. 2014

Minimal Clinically Important Difference In Obese Patients Undergoing Robotic Versus Manual Primary Total Knee Arthroplasty: A Propensity Matched Analysis

Hahn Kang; Sina Afzal; William Sampson; Carlo Mannina; Pengwei Xiao; Oh-Joon Kwon; Muhammad Hamza Ilyas; Margaret Arthur; Oh-Jak Kwon; Michelle Shimizu; Zhijun Li; Isaiah Freeman; Young-Min Kwon

Poster No. 2015

3d Templating Accuracy Of Collared Triple Taper Stems And Single Taper

Melanie Caba; Laura Scholl; Ahmad Faizan; Emily Hamp; Robert Marchand

Poster No. 2016

Clinical Outcomes Of Manual And Robotic Unicompartmental Knee Arthroplasty Across Different Surgeon Volumes

Ugonna Ihekweazu; Anshu Gupta; Mina Kabiri; Jill Ruppenkamp; Rodrigo Diaz

Poster No. 2017

Unsupervised Machine Learning Driven Dynamic Alignment Classification Under Controlled Load In Navigated Total Knee Arthroplasty

Prudhvi Tej Chinimilli; Laurent Angibaud; Amaury Jung; James Huddleston

Poster No. 2018

Accuracy Characterization Of Robotically-assisted Revision Total Hip Arthroplasty

Kailey L. Fitzgerald; Ilya Borukhov; Varun Chandra; Michael A. Mont; Sally LiArno

Poster No. 2019

Withdrawn

Poster No. 2020

Tailoring Risk In Revision Total Hip Arthroplasty: Machine Learning Models For Patient-specific Prognosis

Jibreel Hussain; Jayalakshmi Jain; Apurva Choubey; Nezar Abunnur; Saif Khan; Yasser Farid; Mark Gonzalez

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Room #: Hall A

PS2-174 Infection - Biomarkers and Outcomes

Poster No. 2021

A Surgical Opportunist- Enterobacter Bone And Joint Infection

Avha R. Mohanty; Alexander M. Tatara

Poster No. 2022

Anti-S. Aureus Antibodies Against Autolysin And Pore-forming Toxins Enhance Vital NETosis And Phagocytosis By Cytoplasts Demonstrated With Real Time Fluorescent Microscopy And Imaging Cytometry

Sashank Lekkala; Youliang Ren; Neha Soundar; Hannah Wang; Edward Schwarz; Chao Xie

Poster No. 2023

Withdrawn

Poster No. 2024

Is Sterile Field Turnover Necessary? A Metagenomic And ATP-based Evaluation Of Contamination During Revision Arthroplasty

Andrew L. Thomson; Mia Fowler; Alexander Lucaci; Christopher E. Mason; Alberto V. Carli

Poster No. 2025

Proteomic Profiling Of Synovial Fluid Highlights Immune Alterations In Periprosthetic Joint Infection

Nicolas S Piuze; Suan Sin Foo; Weiqiang Chen; Thaddeus Stappenbeck; Anabelle Visperas

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Room #: Hall A

PS2-175 Infection - Treatment and Therapeutics

Poster No. 2026

Investigating The Effect Of Antiseptic Solutions On Removal Of Biofilm In The Setting Of An Acute Periprosthetic Joint Infection Using A Mouse Model

Christina A. Chao; Mohammed Hammad; Katherine Bell; Mathias P G Bostrom; Alberto V. Carli

Poster No. 2027

The Antibacterial Properties Of The Infrapatellar Fat Pad Organ

Mark Coggins; David Tran; Hugh Jones; Kenneth Mathis; Alisina Shahi

Poster No. 2028

Click Chemistry Hydrogel Effectively Delivers Vancomycin in a Rat Surgical Site Infection Model

D. Joshua Cohen; Ashley M. Carpenter; Thomas W. Jacobs; Michael M. Mancini; Zvi Schwartz; Barbara D. Boyan; Monique L. Van Hoek

Poster No. 2029

Case Study: Using Ultrasound And Microbubbles To Augment DAIR Treatment Of Infected Total Knee Megaprosthesis

Lauren J. Delaney; Priscilla Machado; Noreen J. Hickok; Karan Goswami; Scot Brown; Flemming Forsberg

Poster No. 2030

Methicillin-resistant Staphylococcus Aureus Has Phenotypic Variation In Meca Expression That Alters Antibiotic Sensitivity

Adrian Santana; Samuelson Osifo; Dongzhu Ma; Rekha Arya; Beth Ann Knapick; Nadine Sadaka; Jewelia Rempuszewski; Jonathan Mandell; Dana Parker; Kenneth Urish

Poster No. 2031

Bone-targeted Plga Nanoparticles For Rifampin And Daptomycin Delivery Against Prosthetic Joint Infection

Zahra Eskandari; Keita Fujino; Maria Fernanda Mattos Serafim; Lucy Bowden; Poom Ungolan; Yiwei Yan; Orhun Muratoglu; Ebru Oral

Poster No. 2032

No Difference In Surgical Site Infection Rates Between Cefazolin And Alternative Antibiotics Following Spine Surgery

Daniel Rusu; Aidan Lindgren; William J. Karakash; Henry Avetisian; Nicole Hang; Jadesola Olurin; Christian Au; Marco Napolitano; Rakhi Banerjee; Elizabeth Lechtholz-Zey; Jisun Chin; Marc A. Abdou; Jeffrey C. Wang; Raymond J. Hah; Ram K. Alluri

Poster No. 2033

Sustained Intrawound Metronidazole For Treating Musculoskeletal S. Aureus Infection In An Ovine Trauma Model

Nicholas N. Ashton; Alex N. Madsen; Mario Lopez; Richard N. Epperson; Brooke N. Kawaguchi; Dustin N. Williams