



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-001      Cartilage and Synovium - Diseases and Disorders**

Poster No. 354

**Alterations In Synovial Fluid Composition Negatively Impact The Friction Properties Of Osteoarthritic Cartilage**

Luisa de Roy; Konstantin Ambros; Graciosa Teixeira; Anita Ignatius; Andreas M. Seitz

Poster No. 355

**Determine The Role Of Fatty Acid (fa) Biosynthesis In Obesity Associated Oa Development**

Shadi Moradi; Anupama Binoy; Shouan Zhu

Poster No. 356

**Exploring Ptpn11 As A Therapeutic Target To Mitigate Osteoarthritic Cartilage Degeneration**

Lijun Wang; Jiahui Huang; Adinai Chonweerawong; Thedoe Nyunt; Maurizio Pacifici; Véronique Lefebvre; Shaomeng Wang; Douglas Moore; Wentian Yang

Poster No. 357

**Role Of Sirt5 In Obesity Associated Osteoarthritis Development In The Hip Joint**

Anna Miller; Huanhuan Liu; Siqi Ren; Shadi Moradi; Anupama Binoy; Shouan Zhu

Poster No. 358

**KLF15 Deficiency Is Susceptible To Accelerated Osteoarthritis Associated With Activation Of The Wnt/ $\beta$ -catenin Signaling In Mice**

Akira Saitoh; Shinya Hayashi; Tomoyuki Matsumoto; Naoki Nakano; Yuichi Kuroda; Masanori Tsubosaka; Tomoyuki Kamenaga; Kemmei Ikuta; Shotaro Tachibana; Yuma Onoi; Kensuke Wada; Yoshihito Suda; Takuma Maeda; Araki Shotaro; Motono Kohei; Ryosuke Kuroda

Poster No. 359

**Temsirolimus, A Novel Mtor Inhibitor, Alleviates Osteoarthritic Changes, Both In Vitro And In Vivo**

Yuhei Otsuki

Poster No. 360

**P85: A Key Signaling Molecule In Pgrn/tnfr2 Complexes, Crucial For Pgrn/tnfr2-mediated Chondrocyte Anabolism And Downregulated In Osteoarthritis**

Renpeng Zhou; Wenyu Fu; Kaidi Wang; Chuan-ju Liu



## LIST OF POSTERS

Poster No. 361

**Analysis Of Macrophage Subtype In The Synovium Of Rheumatoid Arthritis**

Hanqing Huang; Yuya Takakubo; Masahiro Maruyama; Tomohiro Uno; Takeru Akabane; Takahiro Igarashi; Naomi Hanaka; Yunzhi Peter Yang; Stuart B Goodman; Michiaki Takagi

Poster No. 362

**Grading Synovitis And Synovial Fibrosis In Common Orthopaedic-related Joint Conditions**

Zijun Zhang; Lew Schon

Poster No. 363

**Establishment Of A Modified Rotator Cuff Tear Arthropathy Model In Mice**

Yusuke Masuda; Tomohiro Iuchi; Takayuki Ide; Toshiro Ijuin; Hiroki Tawaratsumida; Shingo Maeda; Noboru Taniguchi

Poster No. 364

**Cartilage Redox Balance As A Predictor Of Mitochondrial Depolarization In Response To Loading**

Jingyi Wang; Greta E. Scheidt; Corinne Henak

Poster No. 365

**Synovial Regulatory T Cells Mitigate Posttraumatic Osteoarthritis Progression After Acl Rupture In Mice**

Xueyou ZHANG; Mingde CAO; Sai-Chuen Fu; Tim-yun ONG; Shu-hang YUNG

Poster No. 366

**Mechanisms Of NADPH Oxidase 4 Induced Osteoarthritis.**

Elodie Zocola; Felix Renaudin; Cynthia Diabanza; Zohra Bouchemla; Thomas Laumonier; Hannouche Didier

Poster No. 367

**The Involvement Of Apelin In Pain Associated With Knee Osteoarthritis**

Keisuke Atsumi; Naoya Hoshikawa; Daiki Saito; Ryosuke Arakawa; Atsushi Sakai; Tokifumi Majima

Poster No. 368

**Towards A Model Of Diabetic Osteoarthritis Using A Blood-joint Transwell System To Investigate The Impact Of Hyperglycemic Culture Conditions**

Neeraj Sakhrani; Kedar Krishnan; Arvind Nandakumar; Clark Hung

Poster No. 369

**Calcified Cartilage Mineral Maturity Decreases With Early Osteoarthritis In The Human Knee Joint**



## LIST OF POSTERS

Rasmus K. Hiltunen; Mikael J. Turunen; Aapo Ristaniemi; Ervin Nippolainen; Isaac O. Afara; Janne T.A. Makela; Mika E. Mononen; Petri Tanska; Juuso T.J. Honkanen

Poster No. 370

**SIRT1 Antisense Long Noncoding RNA Attenuates Interleukin-1 $\beta$ -induced Osteoarthritic Gene Expression In Human Chondrocytes Through Its mRNA Interaction**

Takeo Tokura; Takehiko Matsushita; Yuta Nakanishi; Tetsuya Yamamoto; Kyohei Nishida; Kanto Nagai; Noriyuki Kanzaki; Yuichi Hoshino; Ryosuke Kuroda

Poster No. 371

**Effects Of A Novel Mammalian-derived Collagen Matrix On Human Articular Cartilage-derived Chondrocytes In Vitro**

Mingyuan Wang; Toru Iwahashi; Takashi Kanamoto; Hiroyuki Tanaka; Ken Nakata

Poster No. 372

**Mutation In The Proofreading Domain Of Mitochondrial DNA Polymerase Increases The Severity Of Trauma Induced Osteoarthritis In A Mouse Model**

Madison M. Buckles; Hakem A. Altawil; Thomas Fanning; Mohammad Y. Ansari

Poster No. 373

**Hypoxic Conditions Promoted Cartilage Repair Via Hif-1 $\alpha$  In A Rat Full Thickness Cartilage Defect Model**

kei nakamura; Atsuo Inoue; Shuji Nakagawa; Ryota Cha; Keisuke Sugie; Kentaro Hayashi; Yuji Arai; Osam Mazda; Kenji Takahashi

Poster No. 374

**Effect Of A Bmp Receptor Inhibitor On The Progression Of A Rat Model Of Rotator Cuff Tear Arthropathy**

Tomohiro Iuchi; Toshiro Ijuin; Hiroki Tawaratsumida; Takayuki Ide; Yusuke Masuda; Shingo Maeda; Noboru Taniguchi

Poster No. 375

**Gpr4 Inhibition But Not Deletion Is Chondroprotective In Late-stage Murine Osteoarthritis**

Ahmed Abdeen; Vengadeshprabhu Karuppagounder; Juliet Chung; Gina Deiter; William Pinamont; Li Yang; Reyad Elbarbary; Fadia Kamal

Poster No. 376

**A Novel Prolonged Progressive Cartilage Degeneration Model; To Reveal The Onset Mechanism Of Primary Knee Osteoarthritis**



## LIST OF POSTERS

---

Saaya Enomoto; Kohei Arakawa; Kei Takahata; Michiaki Sato; Riku Saito; Himari Miyamoto; Yuna Usami; Takanori Kokubun

Poster No. 377

**Trans-signaling By The Pattern-recognition Receptor Cd14 Sensitizes Chondrocytes To Lipopolysaccharide Stimuli, Increasing Chondrocyte Inflammatory Responses**

Anna E. Rapp; Baofeng Hu; Kate Sharp; Carla R. Scanzello



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-002      Cartilage and Synovium - Growth, Development and Aging**

Poster No. 378

**Triglyceride-mediated Autophagy And Mitochondrial Impairment Progresses Osteoarthritis Via Inducing Chondrocyte Senescence**

Hee Jung Park; Hyun Cheol Bae; Gun Hee Cho; youjung kim; Byung Sun Choi; Hyuk-Soo Han

Poster No. 379

**Investigation Of Syndecan-1 Expression During Chondrogenic Differentiation In 3d Murine Spheroids**

Seyedehelnaz Enderami; Melanie Timmen; Richard Stange

Poster No. 380

**KrüPpel-like Factor 15 Deficiency Inhibits Osteochondral Growth In Mouse Embryos**

Yuma Onoi; Shinya Hayashi; Tomoyuki Matsumoto; Naoki Nakano; Yuichi Kuroda; Masanori Tsubosaka; Tomoyuki Kamenaga; Shotaro Tachibana; Kensuke Wada; Yoshihito Suda; Akira Saitoh; Takuma Maeda; Kohei Motono; Shotaro Araki; Ryosuke Kuroda

Poster No. 381

**Systematic Profiling Of Cellular Senescence Gene Signature In Osteoarthritic Chondrocytes For Prediction Of Disease Progression**

Yuki Ogawa; Terukawa Alaa; Endo Tsutomu; Taku Ebata; Norimasa Iwasaki

Poster No. 382

**Type III Collagen Alters Anabolic And Catabolic Responses In Murine Cartilage**

Tiffany C. Wu; Lin Han; Robert L. Mauck; Susan W. Volk

Poster No. 383

**Hypertrophic Chondrocyte Differentiation In 3d Spheroid Cultures Of Human Bone Marrow Mesenchymal Stromal Cells**

Melanie Timmen; Seyedehelnaz Enderami; Julia Voges; Richard Stange

Poster No. 384

**Leveraging Single Cell Multiomics To Identify Factors That Drive Human Chondrocyte And Tendon Cell Fate**

Divya Venkatasubramanian; Gayani Senevirathne; Terence Capellini; April M. Craft



## LIST OF POSTERS

Poster No. 385

**Effect Of Estrogen On Chondrogenesis In Female Articular Chondrocytes**

Ebony Parsons; Mariana Valdez; Sean Stapleton; Janapriya Vijayakumar; Scott Gronowicz; Arnavaz Hakimiyani; Susanna Chubinskaya; Thomas Kean

Poster No. 386

**Interaction Of Regulatory Elements At The GDF5 Locus Act To Drive, Restrict, Or Repress Expression, Impacting Joint Morphology**

Clarissa R. Coveney; David Maridas; Hao Chen; Pushpanathan Muthurilan; Zun Liu; Vicki Rosen; Ata M. Kiapour; Terence D. Capellini

Poster No. 387

**Imeglimin Improved Mitochondrial Function Of Subsynovial Connective Tissue Within The Carpal Tunnel In Carpal Tunnel Syndrome Patients**

Yutaka Ehara; Yutaka Mifune; Atsuyuki Inui; Kohei Yamaura; Tatsuo Kato; Takahiro Furukawa; Shuya Tanaka; Masaya Kusunose; Shunsaku Takigami; Shin Osawa; Daiji Nakabayashi; Ryosuke Kuroda

Poster No. 388

**Meclozine And Growth Hormone Ameliorate Bone Length And Quality In Experimental Models Of Achondroplasia**

Kenta Sawamura; Masaki Matsushita; Kenichi Mishima; Yasunari Kamiya; Hiroshi Kitoh; Shiro Imagama

Poster No. 389

**Chondrocyte Response To Mechano-vulnerability In Rotator Cuff Injury**

Dylan N. Greif; PAROMITA KUNDU; FARAH AL-OMARI; Yaxin Zhang; Sandeep Mannava; Do-Gyoon Kim; Whasil Lee

Poster No. 390

**A Click Chemistry-based Biorthogonal Method For The Detection And Identification Of Lysine Malonylated Proteins For Osteoarthritis Research**

Anupama Binoy; Pandurangan Nanjan; Huanhuan Liu; Shouan Zhu



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-003      Cartilage and Synovium - Injury and Healing**

Poster No. 391

**A Combination Of Mechanical Injury And Pro-inflammatory Cytokines Accelerates The Loss Of Cartilage Collagen Content In An Ex Vivo Post-traumatic Osteoarthritis Model Already After 3 Days**

Moustafa Hamada; Kamran Anwar; Atte Eskelinen; Cristina Florea; Alan Grodzinsky; Petri Tanska; Rami Korhonen

Poster No. 392

**In Vivo Acl-deficient Mouse Model Of Post Traumatic Osteoarthritis With Inhibition Of The Hippo Mechanotransduction Pathway**

Quinn Ehlen; Jacob Jahn; Xiaomin Cai; Lee Kaplan; Thomas Best; Meng Zhipeng; Charles Huang

Poster No. 393

**Vitrification Of Porcine Intact Femoral Condyle Through Different Protocol Lengths And Loading Strategies**

Korinne M. Tirones; Mohammadhamed Shahsavari; Marggi A. Patel; Janet A. W. Elliott; Nadr M. Jomha

Poster No. 394

**Equine Meniscal Injury: A New Surgical Model For Osteoarthritis**

Gustavo H. Coutinho; Amy B. Todd-Donato; Char L. Panek; Aimee C. Colbath

Poster No. 395

**A Comprehensive Analysis Of The Distinct Roles Of Resident Macrophages Vs. Recruited Monocyte In Humans And Animal Models Of Osteoarthritis**

Shahzad Nouri; Atoosa Ziyaeyan; Aida Feiz Barazandeh; Mozghan Rasti; Sowmya Viswanathan

Poster No. 396

**Evaluation Of The Marrow-stimulated Chondral Defects In A Rat Model**

Marina Santos; Abigail Lucas; Amber Slaweski; Theresa Freeman; Thomas Schaer; John Collins

Poster No. 397

**The Effect Of Mechanical Loading On Articular Cartilage Qmri 1-2 Years Following Acl Reconstruction With Meniscal Surgery**



## LIST OF POSTERS

Sadegh Khodabandeloo; John Ramsdell; Amanda Vendemiatti Haddad; Bruce Beynnon; Mathew Failla; Michael DeSarno; Niccolo Fiorentino

Poster No. 398

**Connexin43 Knockout In Cartilage Leads To Rapid Progression Post-traumatic Osteoarthritis**

Kristyna Hargitaiova; Rebecca Irwin; James Pham; Claire Ma; Alexandria M. Davis; Miguel Otero; Michelle Delco

Poster No. 399

**Anti-inflammatory And Anti-fibrotic Effects Of RHAMM-mimetic Peptides On Macrophages And Synovial Fibroblasts**

Dana Kagan; Gulsim Azirakhmet; Maks Coven; Jaren Buliyat; Kevin Shao; Thorsten Kirsch

Poster No. 400

**A New Ovine Combined Cartilage Injury Model For Investigating Cartilage Repair**

Kristyna Hargitaiova; Melia D. Matthews; Salman Matan; Andrew Miller; Sarah Pownder; Lawrence Bonassar; Michelle Delco

Poster No. 401

**Impact Of Sirt5 Conditional Knockout On Post-traumatic Oa Induced By Non-invasive Anterior Cruciate Ligament Rupture In Obese Mice**

Tom C. Martino; Siqi Ren; Shouan Zhu

Poster No. 402

**Injurious Loading Increases Oxygen Consumption: A Metabolic Analysis Of Chondrocytes**

Aidan J. Gregory; Priyanka Brahmachary; Erik Myers; Ron June





## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-004      Cartilage and Synovium - Mechanobiology**

Poster No. 403

**Cartilage Health Evaluation: SHG Imaging Parameters Correlates With Collagen Content In Osteoarthritis**

Ziad Abusara; Benafsha Tughra; Eng Kuan Moo; Venus Joumaa; Sue Miller; Scott Timmermann; Walter Herzog

Poster No. 404

**Involvement Of O-linked Glycosylation In Suppressing Arthritis**

Yusuke Ohno; Kenya Terabe; Shuji Asai; Shiro Imagama

Poster No. 405

**Calcium Wave Propagation: Evidence For Networked Communication Among In Situ Chondrocytes**

Ying Peng; Esther Weyer; X. Lucas Lu

Poster No. 406

**Role Of Collagen Vi And IX In Mechanics Of The Articular Cartilage Cell And Its Microenvironments**

Malek Adouni; Yasmine Dhafer

Poster No. 407

**A Click Chemistry Method To Determine Glycosaminoglycan Composition In Articular Cartilage**

Annie Porter; Steven DiStefano; Emily Newcomb; Michael Axe; X. Lucas Lu

Poster No. 408

**Chondrocytes Embedded In Agarose Hydrogels Generate Fuel-dependent Heat During Central Glucose Metabolism**

Erik Myers; Priyanka Brahmachary; Ron June

Poster No. 409

**Role Of Shear And Compression In A Chondrogenesis In-vitro Model**

Laura Mecchi; Martin J. Stoddart

Poster No. 410

**Development And Validation Of A SPIM System For Studying Chondrocyte Mechanotransduction**



# 2025 ANNUAL MEETING

SCIENCE IS OUR CORE

February 7 – 11, 2025 | Phoenix, Arizona



## LIST OF POSTERS

---

Grant B. Whitacre; Priyanka P. Brahmachary; Ronald K. June; Jeffrey N. Kinkaid



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-005      Cartilage and Synovium - Structure, Function and Mechanics**

Poster No. 411

**The Influence Of Centre-of Pressure On Electroarthrography, A Non-invasive Method To Assess Cartilage Quality**

Josephine Lui; Richard Peter Suderman; Margarete Akens; Marc D. Grynepas; Judith Koenig; Adele Changoor

Poster No. 412

**Extending Shelf-life Of Osteochondral Transplants: Cryopreserved Vs Fresh Osteochondral Allografts**

Caroline Thomas; Kevin Labus; Benjamin Gadomski; Nikki Phillips; Jordyn Mitchell; Laurie Goodrich; Brad Nelson

Poster No. 413

**Four-point Bending Of Adult Human Articular Cartilage Elucidates Altered Biomechanical Polarization In Osteoarthritis**

Robert L. Sah; Isabelle R. Viellgas; Xueyi Wan; Barbara L. Schumacher; Van W. Wong; William Bugbee; Albert C. Chen

Poster No. 414

**Femoroacetabular Impingement In Rabbits: A Biomechanical Study On Joint Function And Deformity**

Takuma Maeda; Tomoyuki Kamenaga; Tomoyuki Matsumoto; Shinya Hayashi; Naoki Nakano; Yuichi Kuroda; Masanori Tsubosaka; Yuma Onoi; Shotaro Tachibana; Yoshihito Suda; Kensuke Wada; akira saito; shotaro araki; kohei motono; Ryosuke Kuroda

Poster No. 415

**Chondrocyte Volume And Proteoglycan Remodeling**

Ying Peng; Lam Vien Che; Julie Nguyen; Ursula van Rienen; X. Lucas Lu

Poster No. 416

**Viability And Expression Of Chondrocytes Harvested During Arthroscopic Treatment Of Femoroacetabular Impingement**

Steven DeFroda; Molly Jones; Bryce Rigden; Jarod Richards; Caleb Bischoff; Brett D. Crist; Aaron M. Stoker; James L. Cook



## LIST OF POSTERS

---

Poster No. 417

**Effects Of Acute Synovitis On Electroarthrography In An Equine Lipopolysaccharide Model**

Richard Peter Suderman; Josephine Lui; Terrence Connor McCorkell; Rodrigo Munevar Luque; Judith Koenig; Adele Changoor

Poster No. 418

**Shear Fatigue Loading Of Articular Cartilage When Subjected To Combined Compressive And Shear Loading**

Kangxin Wang; Jill Middendorf

Poster No. 419

**Post-traumatic Physiological Loading Effect On Biochemically Compromised Articular Cartilage**

Ahmed Suparno Bahar Moni; Asif Istiak; Tanvir Faisal

Poster No. 420

**Distinct Molecular And Structural Traits Of Permanent Versus Transient Cartilage In Early Development**

Jiaqi Xiang; Bryan Kwok; Mingyue Fan; Meghan E. Kupratis; Sara Tufa; Douglas R. Keene; Robert L. Mauck; Nathaniel A. Dymant; Eiki Koyama; Lin Han

Poster No. 421

**Decorin As A Potential Therapeutic To Stabilize Cartilage Nascent Proteoglycans Under Inflammatory Stimulation**

Thomas Li; Mingyue Fan; Yuchen Liu; Annie Porter; Neil Patel; David Birk; Renato Iozzo; X Lucas Lu; Robert Mauck; Lin Han

Poster No. 422

**Comparison Of TMJ And Knee Cartilage Under Physiological Loading: Tissue Composition Differences**

Annie Porter; Ying Peng; Michael Santare; Lin Han; John Peloquin; X Lucas Lu



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-006      Cartilage and Synovium - Treatment and Therapeutics**

Poster No. 423

**Influences Of High-dose Gentamicin Exposure On Human Articular Chondrocyte**

Jonathan Jonathan; Tomoaki Fukui; Keisuke Oe; Yohei Kumabe; Ryo Yoshikawa; Kyohei Takase; Yuya Yamamoto; Ryota Nishida; Hyuma Kondo; Genta Fukumoto; Ryosuke Kuroda

Poster No. 424

**Transplantation Of Glutathione-high Mitochondria Derived From Mesenchymal Stem Cells Alleviate Oa Chondrocyte Phenotypes**

Gun Hee Cho; Hyun Cheol Bae; Byung Sun Choi; Hyuk-Soo Han

Poster No. 425

**Intraperitoneal Administration Of Human Adipose-derived Stromal Vascular Fraction Suppresses Synovial Inflammation In A Mouse CIA Model**

Takuma Maeda; Tomoyuki Matsumoto; Shinya Hayashi; Naoki Nakano; Yuichi Kuroda; Masanori Tsubosaka; Tomoyuki Kamenaga; Yuma Onoi; Shotaro Tachibana; Yoshihito Suda; Kensuke Wada; Akira Saito; Shotaro Araki; Kohei Motono; Hideki Iwaguro; Satoshi Sobajima; Ryosuke Kuroda

Poster No. 426

**Comparisons Of MiRNA Profiles Of Exosomes Derived From Human iPSCs, ADSCs And BMSCs And Effects On Chondrocyte Function**

Shu-Chun Chuang; Ling-Hua Chang; Shun-Cheng Wu; Che-Wei Wu; Yi-Shan Lin; Cyong-yue Liu; Je-Ken Chang; Mei-Ling Ho; Chung-Hwan Chen

Poster No. 427

**Development Of Stem Cell Culture Technique To Stably Generate High Functional Mesenchymal Stem Cells And Its Therapeutic Efficacy For Osteoarthritis Treatment**

youjung kim; Hyun Cheol Bae; Gun Hee Cho; Byung Sun Choi; Hyuk-Soo Han

Poster No. 428

**Fatty Acid Binding Protein 5 Inhibitor Art26.12 Is A Novel Analgesic For Osteoarthritis Pain**

Adam J. Bruzzese; Kai L. Bou; Kaitlin M. Farrell; Chris Gordon; Martin Kaczocha; David E. Komatsu

Poster No. 429



## LIST OF POSTERS

---

**Results From A Randomized Clinical Trial Evaluating The Senolytic Fisetin For Treating Knee Osteoarthritis**

Scott Tashman; Thos Evans; Austin Carcia; Kacie Sorfleet; Kristen Seballos; Sara Robinson; Chloe Barton; Marc Philippon; Grant Dornan; Johnny Huard

Poster No. 430

**DNTM3A-PPAR $\gamma$  Signaling Is A Key Epigenetic Mechanism Of Hip Oa Disease**

Kenichi Kikuchi; Chengchong Ai; Jie Shen; Robert H. Brophy; Regis J. O'Keefe; John C. Clohisy; Cecilia Pascual-Garrido

Poster No. 431

**Modulating The Interplay Between Cell Contractility And TGF- $\beta$ 3 In Enhancing The Early Microfracture Environment**

Maddie Hasson; Hanna Solomon; Xander Patton; Sameh Labib; Jason Bariteau; Jay Patel

Poster No. 432

**Comparative Study Between Rna Interference And Crispr-cas9 For Raptor Gene Silencing In Intracellular Mtor Signaling To Treat Intervertebral Disc Degeneration**

Masao Ryu; Takashi Yurube; Naotoshi Kumagai; Yoshiki Takeoka; Yutaro Kanda; Takeru Tsujimoto; Kunihiro Miyazaki; Tomoya Matsuo; Kohei Kuroshima; Yoshiaki Hiranaka; Yu Inoue; Daisuke Nakagawa; Masahiko Furuya; Ryosuke Kuroda; Kenichiro Kakutani

Poster No. 433

**Lipid Nanoparticles Loaded With A Highly Potent Secretory Phospholipase A<sub>2</sub>Inhibitor For Osteoarthritis Treatment**

Qiushi Liang; Tao Gui; Lijun Luo; Anatoliy V. Popov; Qi He; Kyla Ortved; Andrew Tsourkas; Zhiliang Cheng; LING QIN

Poster No. 434

**Differences In Postoperative Clinical Outcomes And Mri Findings Based On Fixation Methods Of Artificial Collagen Membrane In Autologous Chondrocyte Implantation For Middlw-aged Patients**

Akira Kawai; Tomoya Iseki; Ryo Kanto; Yoshitaka Nakao; Shunsuke Akai; Hiroshi Nakayama; Toshiya Tachibana

Poster No. 435

**Potential Of MGH-CP1 In Enhancing Hyaline Cartilage Regeneration**

Lauren E. Simonian; Hang Lin

Poster No. 436



## LIST OF POSTERS

**Flexofenadine Regulates Chondrocyte Metabolism And Senescence And Is Associated With Osteoarthritis By Targeting Cytosolic Phospholipase A2**

Guiwu Huang; Chaopeng He; Wenyu Fu; Chuan-ju Liu

Poster No. 437

**Therapeutic Potential Of Runx1-engineered Mesenchymal Stem Cells For Cartilage Repair**

Qinqin Xu; Patrick Massey; Shane Barton; Yufeng Dong

Poster No. 438

**Potential Therapeutic Role Of Ginger-derived Extracellular Vesicles In Rheumatoid Arthritis**

Hiroki Kaneta; Tomoyuki Nakasa; Yimiti Dilimulati; Shigeru Miyaki; Nobuo Adachi

Poster No. 439

**Evaluation Of The Efficacy Of Autologous Adipose-derived Stem Cells With Hyaluronic Acid Injection Therapy In Patients With Knee Degenerative Arthritis: Preliminary Results**

Dongjin Ryu; Samuel Jaeyoon Won; Hyun Koo Kang; Ye Gun Noh

Poster No. 440

**Cartilage-targeted Delivery Of Receptor Antagonist Of Il-1 Using Cationic-motif Modified Exosomes**

Tanvi Pathrikar; Helna Mary Baby; Bill Hakim; Hengli Zhang; Hector Millan Cotto; Vineel Kondiboyina; Chenzhen Zhang; Ambika Bajpayee

Poster No. 441

**Characterization Of Extracellular Vesicles From Infrapatellar Fat Pad Mesenchymal Stem/Stromal Cells Expanded Using Regulatory-complaint Media And Inflammatory/Hormonal Priming**

Marc Philippon; Ramy Labib; Lee D. Kaplan; Armando J. Mendez; Tom M. Best; Dimitrios Kouroupis

Poster No. 442

**Changes In Glycan Antigens Associated With Passage Cultures And The Development Of Immune Responses In Autologous Cells**

Kentaro Homan; Yasutaka Tokuhira; Tomohiro Onodera; Hisatoshi Hanamatsu; Jun-ichi Furukawa; Taku Ebata; Masatake Matsuoka; ken Kadoya; Alaa Terkawi; Norimasa Iwasaki

Poster No. 443

**Intra-articular Injection Of Cross-linked Hyaluronic Acid Improves Cartilage Repair In A Rat Model Of Post-traumatic Osteoarthritis**

Tien-Ching Lee; Chih-Ming Kao; Yan-Hsiung Wang; Yin-Chih Fu

Poster No. 444



## LIST OF POSTERS

**Inhibition Of Xanthine Oxidase Protects Against Synovial Pathology In Hif-1a In A Novel Proteoglycan 4 Conditional Knockout Mouse**

Khaled Elsaid; Ling Zhang; Thomas Zhao; Gregory Jay

Poster No. 445

**Senescence Stem Cells Release Catabolic Paracrine Factors: Mimic Inflammatory Microenvironment Induced By Oxidative Stress**

Ronald Throop; Shona Gordon; Joshua Jennings; Harisankeerth Mummareddy; Youngeun Choe; Hongsik Cho

Poster No. 446

**Low Concentrations Of Cdk9 Inhibitor Reduce Cell Proliferation Without Cytotoxicity In Human Chondrocytes**

Kyohei Takase; Jasper Yik; Thomas Jenkins; Dominik Haudenschild

Poster No. 447

**Identification Of Compounds Regulating Sox9 Expression In Chondrocytes For Potential Osteoarthritis Treatment**

Takahiro Morita; Takahide Matsushima; Tomoki Chiba; Yuta Fujii; Kenji Takahashi; Hiroshi Asahara

Poster No. 448

**Administration Of Cellular Communication Network Factor 3 Suppresses Pathological Process Of Rheumatoid Arthritis Via Inhibiting Cell Senescence And Osteoclastogenesis**

Taiki Tokuhira; Hideyuki Kobayashi; Gen Matsumae; Tsutomu Endo; Tomohiro Shimizu; Daisuke Takahashi; Mohamad Alaa Terkawi; Norimasa Iwasaki

Poster No. 449

**Polydactyly Bone Marrow-derived Mesenchymal Stem Cell-conditioned Medium Attenuates Monoiodoacetate-induced Osteoarthritis In A Rat Model**

Shunsuke Akai; Tomoya Iseki; Yoshitaka Nakao; Toshiya Tachibana

Poster No. 450

**Igf2-secreted From High Functional Msc Ameliorates Osteoarthritis Through Chondrocyte Rejuvenation**

Hyun Cheol Bae; Sun Young Wang; Byung Sun Choi; Hyuk-Soo Han





## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-007      Multi-Organ System Crosstalk**

Poster No. 451

**Chronic Mild Stress As Cause And Consequence Of Osteoarthritis - Results Of A Murine Study**

Gundula Rösch; Anna E. Rapp; Pei-Ling Tsai; Shahed Taheri; Helena Kohler; Arndt Schilling; Frank Zaucke; David Slattery; Zsuzsa Jenei-Lanzl

Poster No. 452

**Osteoarthritis Drives Axonal Growth And Axonal Guidance Signatures In Knee-innervating Dorsal Root Ganglia**

Rachel E. Miller; Alia M. Obeidat; Lai Wang; Jun Li; Richard J. Miller; Anne-Marie Malfait

Poster No. 453

**Regeneration-specific Promoter Switching Facilitates Mast Expression In The Mouse Digit Tip To Modulate Neutrophil Response**

Jessica Lehoczky

Poster No. 454

**Osteoarthritic Cartilage Induced Sensitivity To Thermal Stimuli In Trigeminal And Dorsal Root Ganglia Neurons**

Joshua D. Stover; Alejandro Almarza

Poster No. 455

**The Spatiotemporal Requirement Of Hyperactive Ripk2 Activity On Osteoarthritis Development**

Mick Juryneq; Connor Smith



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-008 Hip and Knee Arthroplasty - Clinical Outcomes**

Poster No. 456

**Impact Of Fellowship Type On Complications In Primary And Revision Total Knee Arthroplasty By Recently Trained Board-eligible Orthopedic Surgeons**

Allyson Pfeil; Joshua H. Taylor; Purvi Desai; Corey Hryc; Warren R. Dunn; Anay Patel

Poster No. 457

**10-year Outcomes Following Total Knee Arthroplasty In Patients With Celiac Disease**

Daniel Raftis; Eric Cui; Amy Y. Zhao; Rachel Ranson; Zoe Norris; Jacob D. Mikula; Savyasachi C. Thakkar; Gregory J. Golladay

Poster No. 458

**Comparison Of The Sagittal Implant Position Between Journey II Bi-cruciate Stabilized System And Journey II Cruciate Retaining System**

Umuto Kuwashima; Masafumi Itoh; Junya Itou; Ken Okazaki

Poster No. 459

**Usage Of Loop Diuretics For Hypertension Is Associated With Increased Revisions Following Total Knee Arthroplasty**

Jackson Durbin; Andrew Fealy; Amy Zhao; Emile-Victor Kuyl; Sabrina Gill; Alex Gu; Robert Sterling; Jordan C. Villa

Poster No. 460

**Evaluation Of Acetabular Cup Screw Length In Total Hip Arthroplasty**

Jonathan Liu; Noah Gilreath; Mohammad Daher; Sandi Caus; Eric Cohen; Derek Jenkins; Thomas Barrett; Mouhannad El Othmani; Valentin Antoci

Poster No. 461

**Comparison Of Short-term Outcomes Between Robotic-assisted Total And Bicompartamental Knee Arthroplasty**

Gregorio Baek; Ji Won Lee; Beruk Sherif; Thomas Peacock; Henry Boucher

Poster No. 462

**The Effect Of Pelvic Parameters On Patient-Reported Outcomes Of Total Hip Arthroplasty**



## LIST OF POSTERS

Jonathan Liu; Noah Gilreath; Mohammad Daher; Derek Jenkins; Thomas Barrett; Mouhannad El Othmani; Valentin Antoci

Poster No. 463

**Withdrawn**

Poster No. 464

**Regional Differences In The Use Of Mid-level Constraint Bearings In Total Knee Arthroplasty**

Bo Gao; Luis Alvarez; Tyler Erickson

Poster No. 465

**Short-term Outcomes Of A New Metaphyseal Filling, Collared Stem For Robotic-assisted Total Hip Arthroplasty With A Direct Anterior Approach**

Bradley Nolan; Melanie Caba; Emily Kaczynski; Jack Simpson; Hailey Bates; Honorah Dougherty; Robert Marchand

Poster No. 466

**Do Changes In Femoral Coronal Alignment Impact Outcomes Of Bilateral Total Knee Arthroplasty?**

Melanie Caba; Bradley Nolan; Emily Kaczynski; Jack Simpson; Hailey Bates; Honorah Dougherty; Robert Marchand

Poster No. 467

**Outcomes Of Cemented Vs. Uncemented Hip Arthroplasty For Proximal Femoral Metastatic Bone Disease: A Multicenter Evaluation Of 337 Patients**

Stephen Chenard; Katherine Hajdu; Hakmook Kang; Benjamin Wright; Elizabeth Sachs; Nicole Levine; Spencer Richardson; Michael Eckhoff; Nathan Mesko; Zachary Burke; Brian Brigman; William Eward; Odion Binitie; David Joyce; Carl Quinion; Joel Mayerson; Jennifer Halpern; Ginger Holt; Herbert Schwartz; Lukas Nystrom; Julia Visgauss; Christopher Collier; Alexander Lazarides; John Alexander; Joshua Lawrenz

Poster No. 468

**Muscle Activation Patterns During Stair Negotiation Comparing Surgical Alignment Techniques And Implant Designs**

Alexis K. Nelson-Tranum; Nuanqiu Hou; Douglas Powell; James L. Guyton; John R. Crockarell; Christopher Holland; Derek Dixon; Teri Ross; Austin Jernigan; Joshua Sawiers; Rivera-Peraza Carlos; John W. Jestus; Marcus C. Ford; William Mihalko

Poster No. 468A

**Variation In Functional Acetabular Component Placement In Femoral Neck Fracture Patients**



## LIST OF POSTERS

Ricardo R. Tijerina; Chuheng Xing; Sabir K. Ismaily; Shuyang Han; Robert Frangie; David Rodriguez-Quintana

Poster No. 469

**Morbid Obesity And Mechanical Alignment: An Updated Retrospective Study Of 837 Knees**

William Sgrignoli; Caleb McCabe; Victoria C. Tappa; Jacob M. Elkins

Poster No. 470

**Low Complication Rates For ASC Based Outpatient Total Hip And Knee Arthroplasty In Patients 65 And Over**

Navkiran K. Bedi; Michael Swank

Poster No. 471

**Comparing Outcomes Of Medicare And Other Insurance Groups In TKA: Insights For CMS' Upcoming Mandatory PROMs Reporting Policy**

Ignacio Pasqualini; Shujaa T. Khan; Alison Klika; Chao Zhang; Peter Surace; Matthew Deren; Anabelle Visperas; Viktor Krebs; Nicolas S Piuze

Poster No. 472

**Lower PROMs Completion And Higher Follow-up Needs In Inpatient Vs. Outpatient Medicare Patients**

Ignacio Pasqualini; Shujaa T. Khan; Alison Klika; Chao Zhang; Carlos A. Higuera; Anabelle Visperas; Kim Stearns; Matthew Deren; Nicolas S Piuze

Poster No. 473

**Cementless Versus Cemented Stems In Patients Over 70 Years Of Age Undergoing Total Hip Arthroplasty**

Alexandra Rocha; Edward Vasarhelyi; Brent Lanting; Steven MacDonald; James Howard; Richard McCalden; Douglas Naudie; Lyndsay Somerville; Patrick Moody

Poster No. 473A

**Post-operative Physical Recovery Trajectory Following Total Knee Arthroplasty**

Alexander P. Hamel; Pamela A. Chan; Robert Hall; Hua Zheng; David C. Ayers

Poster No. 474

**Gait Pattern Variation Following Total Knee Arthroplasty For Knee Osteoarthritis**

Yasushi Oshima; Tokifumi Majima

Poster No. 475



## LIST OF POSTERS

**Comparison Of The Tibial Posterior Slope Angle Determined By Between The Tibial Mechanical Axis And 5 Diaphyseal Tibial Axes After Total Knee Arthroplasty**

Yoshinori Ishii; Hideo Noguchi; Junko Sato; Ikuko Takahashi

Poster No. 476

**Unacceptable But Clinically Appropriate: Registry Based Early Outcomes Of Revision Total Knee Arthroplasty**

Allina Nocon; Kathleen Tam; Brian Chalmers; Friedrich Boettner; Peter Sculco; Thomas Sculco

Poster No. 477

**Safety And Effectiveness Of A Stand-alone Ambulatory Care Joint Replacement Program**

Paul Beaulé; Samuel Morgan; Koorosh Kashanian; Matey Juric; Ervis Musa

Poster No. 478

**10-year Revision Outcomes Following Total Hip Arthroplasty In Patients With Inflammatory Bowel Disease**

Daniel Raftis; Eric Cui; Amy Y. Zhao; Rachel Ranson; Zoe Norris; Jacob D. Mikula; Savyasachi C. Thakkar; Gregory J. Golladay

Poster No. 479

**Revision Total Joint Arthroplasty: A Five-year Overview**

Allina Nocon; Eytan Debbi; Elizabeth Gausden; Jason Blevins; Friedrich Boettner; Peter Sculco; Thomas Sculco

Poster No. 480

**Primary Raynaud's Associated With Increases Risk Of Adverse Events Following Total Knee Arthroplasty**

Julian Smith-Voudouris; Lucas Kim; Jonathan N. Grauer



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-009 Hip and Knee Arthroplasty - Complications/Infections**

Poster No. 481

**Antifibrotic Effects And Safety Of Losartan In Primary Human Fibroblasts**

Ashley N. Payne; Roman Thaler; Mason Carstens; Amel Dudakovic; Mark Morrey; Joaquin Sanchez-Sotelo; Daniel Berry; Matthew Abdel

Poster No. 482

**Stability Of Osteoremedies Remedy Hip Spacer For Two-stage Revisions Of Prosthetic Joint Infections: Single Center Analysis**

Carsyn Dykes; Timothy Damron

Poster No. 483

**Do Preoperative Nutritional Biomarkers Predict Total Hip Arthroplasty Outcomes?**

Eden VanderHoek; Spencer Smith; Zoe VanderHoek; Amalia Larsen; Jung Yoo; Ryland Kagan

Poster No. 484

**Zipper Method Versus Conventional Wound Closure In Total Joint Arthroplasty: A Propensity Matched Cohort Study**

Paul D. Korytkowski; Joseph Giancaspro; Timothy Damron

Poster No. 485

**Report On Complication Rates In TKA Patients Over 90 Years In Japan, Compared To Patients In Their 80-89 Age Group**

Shingo Kurihara; Sayuri Shimizu; Kiyohide Fushimi; Tadahiro Goto

Poster No. 486

**Intraosseous Vancomycin Reduces The Rate Of Periprosthetic Joint Infection Following Aseptic Total Knee Arthroplasty**

Kwan J. Park; Colin A. McNamara; Austin E. Winger; Thomas C. Sullivan; Timothy Brown; Terry A. Clyburn; Stephen J. Incavo

Poster No. 487

**Incidence Of Allergic Contact Dermatitis To Dermabond Prineo In Total Joint Arthroplasty**

Timothy S. Brown; Richard S. Fuld; Thomas C. Sullivan; Robert S. Neff; Terry Clyburn; Kwan J. Park



## LIST OF POSTERS

---

Poster No. 488

**Treatment And Resolution Of Non-acute Periprosthetic Joint Infections: A Case Series Review**

Allyson Pfeil; Trayce Gray; Joshua H. Taylor; Purvi Desai; Alexandra McLennan; Anay Patel; Roberto Gonzalez; Corey Hryc; Ava Brozovich

Poster No. 489

**Prescription Testosterone Increases The Risk Of Reoperation For Infection And All Cause Reoperation After Primary Total Knee Arthroplasty**

Hannah Travers; Gloria Coden; Jacob Kirsch; Eric Smith; James V. Bono

Poster No. 490

**Withdrawn**

Poster No. 491

**Cxcl16/cxcr6/tgf- $\beta$  Feedback Loop Between M-mdscs And Treg Mediates Immunosuppression In S. Aureus Periprosthetic Joint Infection**

Xiaoyu Wu; Zilong Wang; Chenghan Chu; Puyi Sheng



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-010 Hip and Knee Arthroplasty - Implant Materials, Fixation and Wear**

Poster No. 492

**Evaluation Of Stress Shielding Effects Of Cementless Hip Prostheses Using Digital Image Correlation**

Jonas Schwer; Moritz Oltmanns; Sandy Weis; Mona Ziegler; Anita Ignatius; Heiko Reichel; Martin Faschingbauer; Andreas Seitz

Poster No. 493

**Evaluation Fixation Force Of An Artificial Hip Acetabular Cup Placed In Simulated Bone Using A Quantitative Press-fit Technique.**

Asahi Sujino

Poster No. 494

**Pre-clinical Wear Test Of Different Hip Implant Designs Manufactured In Brazil**

Rafael M. Trommer; Marcia Marie Maru; Ricardo Dos Santos

Poster No. 495

**Evaluation Of Metaphyseal Sleeves As A Fixation Strategy For Distal Femur Replacement: A Biomechanical Study**

Miguel A. Diaz; Chris Leibold; Pablo Sanchez-Urgelles; Peter Simon; Bernasek L. Thomas

Poster No. 496

**Biomechanical Analysis Of The Rebar Technique For Tibial Defects In Total Knee Arthroplasty**

Miguel A. Diaz; Sean P. Moroze; William A. Baione; Peter Simon; Steve T. Lyons

Poster No. 497

**Metal Exposure In The Central Nervous System Of Arthroplasty Patients**

Janosch Schoon; Carsten Perka; Anastasia Rakow

Poster No. 498

**Is Mean Coating Thickness Per Astm F1854 A Reliable Method To Capture Coating Thickness Of Porous Structures?**

Aline Elquist

Poster No. 499

As of 2.5.2025





## LIST OF POSTERS

**Tribological Analysis Of Heat Treatments On Medical Grade Cobalt Chromium Molybdenum Alloys**

Samuel Bowden; Robert Hovanski; Quentin Allen

Poster No. 500

**Optimization Of High-temperature Melting Duration Of Di-cumyl Peroxide Cross-linked Uhmwpe/vitamin-e Blend For Total Joint Arthroplasty Implants.**

Matheus Y. Ferreira; Mehmet Asik; Keith Wannomae; Ebru Oral; Orhun Muratoglu

Poster No. 501

**A Retrospective Multinational Multicenter Study To Review The Use Of Simplex High Viscosity (HV) Bone Cement In Primary Total Knee Arthroplasty (TKA)**

Sophia Antonioli; Moez Zeiton; Catherine Di Gangi; Andrew Toms; Matthew Hepinstall

Poster No. 502

**Clinical And Radiological Outcomes Of 3d Printed And Individualized Implants In Aseptic Knee Revision Arthroplasty - A 3.5-year Follow-up Monocenter Study**

Stefanie Donner; Stephanie Kirschbaum; Clemens Gwinner; Carsten Perka

Poster No. 503

**Evaluation Of Bone Integrity Around The Acetabular Cup Using Noninvasive Laser Resonance Frequency Analysis**

Takuto Hatakeyama; Daisuke Nakashima; Katsuhiro Mikami; Akihito Oya; Fujie Atsuhiro; Asahi Sujino; Masaya Nakamura; Takeo Nagura

Poster No. 504

**Optimizing The Tray-cement Bond In Total Knee Replacement**

Mark Miller; Kenneth A. Mann



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-011 Hip and Knee Arthroplasty - Kinematics and Computational Modeling**

Poster No. 505

**The Effect Of Bone Relaxation On The Simulated Pull-off Force Of A Cementless Femoral Knee Implant**

Thomas Gersie; Thom Bitter; Robert Freeman; Nico Verdonschot; Dennis Janssen

Poster No. 506

**Understanding Multiplanar Knee Laxity Measures In Total Knee Arthroplasty Using The Pendulum Knee Drop**

Kevin Abbruzzese; Bernard Liebskind; Michael Dunbar; Jared Weir; Yogesh Mittal; Michael Mont; Sally LiArno

Poster No. 507

**Laxity Testing Of A Total Knee Replacement Fea Model**

Elizabeth A. Wynn; Markus A. Wimmer; Hannah J. Lundberg; Steven P. Mell

Poster No. 508

**Evaluating The Influence Of Postoperative Recovery Time On Joint Mechanics And Implant Fixation Using A Patient-Specific Computational Workflow To Holistically Assess TKA Biomechanics**

Jonathan D. Glenday; Peter K. Sculco; Jonathan M. Vigdorichik; Cynthia A. Kahlenberg; David J. Mayman; Eytan M. Debbi; Joseph D. Lipman; Timothy M Wright; Fernando J. Quevedo Gonzalez

Poster No. 509

**Role Of The Medial Collateral Ligament In Mid-flexion Sagittal Stability In Posterior-stabilized Total Knee Arthroplasty: A Computational-experimental Study**

Reza Pourmodheji; Cynthia Kahlenberg; Eytan Debbi; Erin Berube; Brian Chalmers; William Long; Timothy M Wright; Geoffrey Westrich; David Mayman; Peter Sculco; Carl Imhauser

Poster No. 510

**Mechanical Changes Of The Three Lower Extremity Joints After MOWHTO**

Taiki Tokuhiro; Yasumitsu Ohkoshi; Koji Iwasaki; Kazuki Sasaya; Kengo Ukishiro; Kensaku Kawakami; Sho'ji Suzuki; Tatsunori Maeda; Rikiya Baba; Junki Shiota; Yuki Suzuki; Tomohiro Onodera; Eiji Kondo; Norimasa Iwasaki

Poster No. 511



## LIST OF POSTERS

---

**Effects Of The Type Of Bearing On Acetabular Bone Interfacial Strain After Total Hip Arthroplasty**

Julien Wegrzyn; Lore Hoffmann; Alexander Antoniadis; Alexandre Terrier

Poster No. 512

**Electromyographic Activity Of Knee Muscles During Stair Descent In Patients After Total Knee Arthroplasty: a Study Comparing Different Implant Designs**

Mario Lamontagne; Erik Kowalski; Alexandre R. M. Pelegrinelli; Geoffrey F. Dervin

Poster No. 512A

**Effect Of Fracture Length And Location On Calcar Fracture Propagation For Press-fit Blade-stem Implants**

Ahmad Quaddoura; Nicholas Dunbar; Robert Frangie

Poster No. 513

**Patellofemoral Joint Exhibits Unfavorable Kinematic Changes After Unicompartmental Knee Arthroplasty**

Tianyun Gu; Nan Zheng; Diyang Zou; Qi Wang; Tsung-Yuan Tsai



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-012 Hip and Knee Arthroplasty - Robotics and AI**

Poster No. 514

**Evaluating Tibial Component Rotation After Total Knee Arthroplasty Using Augmented Reality Navigation System With Smart Glasses**

Takayuki Koya; Atsushi Sato; Masataka Ota; Jun Oike; Misako Takizawa; Reo Nagasaka; Marika Mukunoki; Kanako Izukashi; Takayuki Okumo; Saki Yagura; Koji Kanzaki

Poster No. 515

**Development Of A Cascaded Unet For Automatic Segmentation Of Pelvic Bone Fracture Fragments**

Zhengliang Li; Pengyu Ye; Zhiyong Hou; Tsung-Yuan Tsai

Poster No. 516

**Deep Learning-based Predictions Of Polyethylene Insert Wear In Total Knee Replacements**

Mattia Perrone; Scott Simmons; Philip Malloy; Catherine Yuh; John Martin; Steven P. Mell

Poster No. 517

**Implications Of Rosa-assisted Total Knee Replacements On Patients And Physicians: A Scoping Review**

Bassem M. Darwish; Robert Ablove

Poster No. 518

**Validation In Preoperative 3D Planning For Total Hip Arthroplasty Across Hip Surgeons**

Ryo Higuchi; Keisuke Uemura; Yoshito Otake; Haruka Fuji; Kazunori Tamura; Sotaro Kono; Hirokazu Mae; Kazuma Takashima; Yoshinobu Sato; Hidetoshi Hamada

Poster No. 519

**Walking Training Using Arm Swing Rhythm Assist Robot In Sitting Position Improves Gait Parameters In Total Knee Arthroplasty Patients.**

Wataru Shirahata; Yusuke Nakagawa; Tomomasa Nakamura; Nobutake Ozeki; Mai Katakura; Takashi Hoshino; Masaki Amemiya; Toshitaka Yoshii; Ichiro Sekiya; Hideyuki Koga; Yoshihiro Miyake; Taiki Ogata

Poster No. 520

**Clinical Trends And Outcomes In Technology Assisted Total Hip Arthroplasty**

Konstantinos Oikonomou; Nicholas R. Kiritsis; Haleigh M. Hopper; James R. Satalich; Conor N. O'Neill; Brady Ernst; Jibanananda Satpathy



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-013      Infection - Biomarkers and Outcomes**

Poster No. 521

**Integrating Single-Cell And Bulk Rna Sequencing Data Reveals The Diagnostic Value Of S100a8/a9 For PJI**

Yang Xing; Puyi Sheng

Poster No. 522

**Novel Biomarkers For Diagnosis Of Musculoskeletal Infections: Cd177, Rrm2, And Mybl2**

Taiwo S. Agidigbi; Ilda Molloy; Irvin Oh

Poster No. 523

**Withdrawn**

Poster No. 524

**Evaluation Of 16srRna PCR Assay In Bone And Soft Tissue Infections In 2,836 Samples**

Yuta Hieda; Hyonmin Choe; Masashi Shimoda; Koki Abe; Hiroyuki Ike; Yota Katsuyama; Hironori Yamane; Tomotaka Yoshida; Yusuke Inoue; Ken Kumagai; Naomi Kobayashi; Yutaka Inaba

Poster No. 525

**Incidence Of Infection Associated With Placement Of Skeletal Traction Pins Using Unsterile Drills**

Joshua Ungar; Andrew Burcke; Sahand Fallahi; Thomas Revak

Poster No. 526

**Validating Anti-S. Aureus Immunotherapies Via Time Lapse Fluorescent Confocal Microscopy Of Neutrophil Survival, Swarming, And Opsonophagocytosis Of Bacteria On Metal Implants**

Sashank Lekkala; Youliang Ren; Edward Schwarz; Chao Xie

Poster No. 527

**Humoral Response To Staphylococcus Aureus In Mski Patients**

Taiwo S. Agidigbi; Irvin Oh

Poster No. 528

**Automated Natural Language Processing Pipeline To Detect Surgical Site Infection After Posterior Spinal Fusion**

As of 2.5.2025



# 2025 ANNUAL MEETING

SCIENCE IS OUR CORE

February 7 – 11, 2025 | Phoenix, Arizona



## LIST OF POSTERS

---

Nazgol Tavabi; Ophelie Lavoie-Gagne; Andre Weiss; Leili Sarmadi; Ata M. Kiapour



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-014      Infection - Treatment and Therapeutics**

Poster No. 529

**Halicin Increases The Potency Of Rifampicin Against S. Aureus Biofilms By More Than 100-fold and Prevents Rifampicin Resistance**

Joash R. Suryavanshi; Akira Morita; Allison Wintring; James Slaven; Dalton Walsh; Shota Higashihira; Roman M. Natoli; Ed M. Greenfield

Poster No. 530

**Pre-operative Management Of The Penicillin Allergic Patient, A Review**

Ashley M. Hernandez; Yahir A. Davila; Jason Nikirk; Cesar Ramirez; Umaru Barrie; Krysta Caudle; Porter Young

Poster No. 531

**Injectable And In-situ Forming Genipin-crosslinked Gelatin/hyaluronic Acid Hydrogel Incorporated With Vancomycin As Effective Drug Delivery System For Musculoskeletal Infection Control**

Chin-Chean Wong; Er-Yuan Chuang

Poster No. 532

**Antibacterial DNase I/Lyso-PDA Implant Coating For Fracture-related Infection**

Baoqi Li; Chaoran Liu; Ning Zhang; Wing Hoi Cheung; Ronald Man Yeung Wong

Poster No. 533

**Synergy Between Liposome-encapsulated Vancomycin And Cold Plasma When Treating Orthopedic Implant Associated Staphylococcus Aureus Biofilms**

Amanda R. Watkins; Ross Duncan; Alannah Bratten; Carly Smith; Brendan Gilmore; Thomas P. Schaer; Theresa A. Freeman

Poster No. 534

**A Standardized Dair Protocol Involving Specific Antiseptic Solutions Produces Promising Short-term Results In Hip And Knee Pji**

Peter Sculco; Allina Nocon; Mark Youssef; David Mayman; Alberto Carli

Poster No. 535

**Exploring The Efficacy Of Antibiofilm Treatments On Orthopaedic Metals**



## LIST OF POSTERS

---

Kenneth Chrulski; Ashley Levack

Poster No. 536

**Effects Of Hydroxybisphosphonate-conjugate Sitafloxacin On Fracture Healing And Skeletal Growth In Mice**

Hannah Y. Wang; Youliang Ren; Thomas Xue; Sashank Lekkala; Allie Jia Hui Tay; Jason Weeks; Frank Ebetino; Jeffrey Neighbors; Shuting Sun; Edward Schwarz; Chao Xie

Poster No. 537

**Effect Of High Antibiotic Concentrations On Human Umbilical Vein Endothelial Cells When Applied Through A Continuous Local Antibiotic Perfusion**

Genta Fukumoto; Tomoaki Fukui; Yohei Kumabe; Keisuke Oe; Yuya Yamamoto; Ryota Nishida; Hyuma Kondo; Jonathan Jonathan; Akihiro Maruo; Takahiro Niikura; Ryosuke Kuroda

Poster No. 538

**Improving Outcomes In Periprosthetic Joint Infection: A Prospective Study On Standardized DAIR Protocol Efficacy**

Alberto Carli; Allina Nocon; Bianca Nakar; Gwo-Chin Lee; Peter Sculco

Poster No. 539

**Outcomes And Risk Factors For Complications, Readmissions, And Reoperations Following Below-knee Amputation: A Comprehensive Analysis Beyond The 30-day Window**

Caleb J. Bischoff; Joshua A. Scheiderer; Ashwin R. Garlapaty; Emily V. Leary; Kyle Schweser; James P. Stannard; Gregory J. Della Rocca; Mauricio Kfuri; Brett D. Crist

Poster No. 540

**In Vitro Analysis Of Antiseptic Solution Effects On Staphylococcus Aureus Biofilms On Orthopaedic Implant Materials**

Madison Balagtas; Matthew Baldrige; Marina Feffer; Ashley Levack





## LIST OF POSTERS

### Saturday, February 8, 2025

10:00 AM - 7:30 PM

Room #: North Hall A-C

#### **PS1-015      Biomaterials - Controlled Release**

Poster No. 541

##### **Ultrasound Responsive Agent For Delayed/Non-union Fracture Healing**

Meng Chen Michelle Li; Daniel Cadoux-Hudson; Janos Kanczler; Dariusz Kosk; Awaneesh Upadhyay; Dario Carugo; Eleanor Stride; Nick Evans

Poster No. 542

##### **Enhanced Cartilage-targeted Delivery Of Atsttrin Via Pamam Dendrimer Conjugation**

Lida Moradi; Chuan-Ju Liu

Poster No. 543

##### **Magnetic Microgels For Composite Musculoskeletal Regeneration**

Runrun Chen; Martin H. Liu; Yunpeng Tu; Juan C. del Álamo; Woojin M. Han; Feini Qu

Poster No. 544

##### **Peptide Hydrogel Mediated Controlled Release Of Recombinant Human Bone Morphogenetic Protein-2 And Its Relevance To Spinal Fusion**

Jinxi Wang; Dalin Wang; Mingcai Zhang; Brandon Carlson; Douglas Burton

Poster No. 545

##### **Comparison Of The Biological Effects Of Peripheral Blood-derived Platelet-rich Fibrin (P-PRF) And Bone Marrow-derived Prf (BM-PRF) In Rabbits**

Takahiro Igarashi; Masahiro Maruyama; Hanqing Huang; NAOMI HANAKA; Tomohiro Uno; Akemi Suzuki; Yuya Takakubo; Yunzhi Yang; Stuart Goodman; Michiaki Takagi

Poster No. 546

##### **Characterizing The Life Cycle Of Nanosomes: Burst Release, Distribution, And Clearance Dynamics In Vitro And Vivo**

James Northcutt; Harisankeerth Mummareddy; Youngeun Choe; Hongsik Cho

Poster No. 547

##### **Local Injection Efficacy: Backflow Reduction with Gelatin-Based Formulations**

Francois Marie Ngako Kadji; Kazuki Kotani; Yoshinobu Mandai; Yosuke Hiraoka



## LIST OF POSTERS

Poster No. 548

**Evaluating Cytotoxicity Of Doxorubicin Released From An Iohexol Containing Calcium Sulfate/hydroxyapatite Biomaterial Against tumor Cells In-vitro**

Hadis Alidadi; Lars Lidgren; Magnus Tagil; Deepak Rushan Raina

Poster No. 549

**Mobilizing Endogenous Progenitor Cells Using SDF1 $\alpha$ -activated Scaffolds Accelerates Angiogenesis And Bone Repair In Critical-sized Bone Defects**

Rosanne M. Raftery; Arlyng G. Gonzalez Vazquez; David P. Walsh; Gang Chen; Ashang Laiva; Michael Keogh; Fergal O'Brien

Poster No. 550

**Evaluation Of A Novel Spinal Device For Ultrasound-triggered Prophylaxis Against Bacteria In An Animal Model Of Spinal Surgery**

Lauren J. Delaney; Priscilla Machado; Asia Wilson; Ji-Bin Liu; Rajkishen Narayanan; Teeto Ezeonu; Christopher K. Kepler; Gagan Kaushal; Viren Soni; Thomas P. Schaer; Noreen J. Hickok; Flemming Forsberg

Poster No. 550A

**Acetabular Bone Cement Extension Leading To Bladder Obstruction: A Rare Orthopedic Surgical Complication**

Axel B. Lichtenberg; Ali Ansari; Ghazwan Bahro; Muhammad Bilal; Sean Lief; Srihita Patibandla; Sahar Hafeez

Poster No. 551

**A Dynamic Device To Quantify Real-time Intraarticular Drug-release Kinetics**

Mehmet Asik; Aybike Reyhanli; Maria Fernanda Mattos Serafim; Nicoletta Inverardi; Orhun Muratoglu; Ebru Oral



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-016      Biomaterials - Orthopaedic Implant Materials**

Poster No. 552

**Safety And Performance Of An Absorbable Nutrient Metal Magnesium Alloy: A Pilot Study Using An Ovine Tibial Bicortical Insertion Model**

Adam J. Griebel; Jeremy E. Schaffer; Bernadette Biong; Fabian Soza; Maria Bates; Michel Assad

Poster No. 553

**The Hygro-mechanical Response And Fixation Strength Of Swelling Bone Implants In Artificial Bones**

Amir Sadighi; Moein Taghvaei; Mehrangiz Taheri; Delaney Oeth; Madeline Boyes; Sorin Siegler; Thomas Schaer; Ahmad R. Najafi

Poster No. 554

**Tantalum As Wear Debris Affects The Osteogenic Activity Of Osteoblasts**

Srijan Chatterjee; Ashish Ranjan Sharma; Yeon-Hee Lee; Jae Gyu Kim; Sang-Soo Lee

Poster No. 555

**Thin Film Copper-coated Carbon-infiltrated Carbon Nanotubes Effectively Kill Methicillin-resistant Staphylococcus Aureus**

Lucy C. Bowden; Brian D. Jensen; Anton E. Bowden; Bradford K. Berges

Poster No. 556

**No Compromise On Wear When Articulating Nitrided Titanium Glenspheres With Vitamin-e Highly Crosslinked Polyethylene Humeral Bearings In Reverse Shoulder Arthroplasty**

Diego A. Orozco Villasenor; Ravikumar Varadarajan; Kimberly D. Mimnaugh

Poster No. 557

**Metallosis In Posterior Lumbar Fusion: Corrosive Susceptibility Based On Rod Metal Type And Bending Method**

Samantha Corman; Nicole Watson; Douglas Fredericks; Catherine R. Olinger

Poster No. 558

**Evaluation of Biodegradable Metal Implants With Controlled Dissolution Rates In Vivo**



## LIST OF POSTERS

Ryo Maekawa; Yoshinobu Oka; Junpei Natsui; HIROAKI WADA; Wook-Cheol Kim; Yoshinori Sakanoue; Tomoaki Murata; Yusuke Kobayashi; Natthiwan Dodyim; Sadami Tsutsumi; Masaki Tanaka; Kenji Takahashi

Poster No. 559

**Radiation Crosslinking And Grafting Of Antibiotic-loaded UHMWPE**

Nicoletta Inverardi; Maria Fernanda Mattos Serafim; Amita Sekar; Keita Fujino; Matheus Ferreira; Anthony Marzouca; Emma Nagler; Orhun Muratoglu; Ebru Oral

Poster No. 560

**Bone Regeneration Potential Of Silk-elastin In A Rat Tibial Bone Defect Model**

Shun Miyamoto; Konosuke Yamaguchi; Kunihiro Oka; Yoshiaki Yamada; Shingo Kawabata; Satoshi Somamoto; Shunta Horishita; Kazuhiro Takahashi; Yoshio Kaji; Masakazu Ishikawa

Poster No. 561

**Inorganic-organic Hybrid Metamaterials With Switchable High Stiffness And Elasticity For Critical Sized Bone Defect Repair**

Kelvin Yeung; Jun Wu; Feihong Liu

Poster No. 562

**Withdrawn**

Poster No. 563

**Withdrawn**

Poster No. 564

**The Rate Of Dissolution Between Synthetic Bone Graft Substitutes For The Management Of Bony Defects**

Kara McConaghy; Mike Smietana; Jesse Fleming; Ashley Knight; Ignacio Pasqualini; Nicolas Piuze

Poster No. 565

**Does Obesity Cause Higher Risk Of Implant Related Toxicity?: In Vitro Preliminary Investigation**

Mareeswari Paramasivan; Jeffrey Mathew; Mark Barba; Mathew Mathew

Poster No. 566

**The Importance Of Composite Area In Orthodontic Bracket Adhesion To Vertebrae**

Javier Castro; James M. Mok; Karl C. Bruckman; Calvin Chan; Anna B. Karnowska; Harsh Wadhwa; Olivia Okoli; Jayme Koltsov; Serena Hu



## LIST OF POSTERS

Poster No. 567

**Dental Composite Offers Comparable Or Greater Pullout And Shear Strength To Lateral Mass Screw Fixation In A Human Cadaveric Model**

Javier Castro; James M. Mok; Karl C. Bruckman; Calvin Chan; Anna B. Karnowska; Harsh Wadhwa; Olivia Okoli; Jayme Koltsov; Serena Hu

Poster No. 568

**Osteoinductive Biodegradable Intramedullary Implant Accelerates Bone Healing And Promotes Early Weight Bearing In A Rat Acute Shortening And Gradual Bone Lengthening Model**

Tomohiro Uno; Elaine Lui; Hossein Vahid Alizadeh; Peng Zhao; Jiannan Li; Hirotsugu Maekawa; Andrea Sofia Flores Perez; Tien-Ching Lee; David Isaac Shamah; Sungwoo Kim; Masahiro Maruyama; Yuya Takakubo; Michiaki Takagi; Jeffrey L. Young; Michael Gardner; David G. Mohler; William J. Maloney; Yunzhi Yang

Poster No. 569

**Subchondral Fracture Repair By Minimally-invasive Allograft Impaction Grafting: A Biomechanical Cadaveric Study**

Ting Cong; Michael Yancey; Kathleen Meyers; Brian Muffly; Dan Viola; Anil Ranawat; Jeri W. Nieves; Timothy M Wright; Joseph Lane

Poster No. 570

**Neurotoxicity Risk Assessment Of Metal Ions From Hip Implants Using Neuroblastoma IMR 32 An In Vitro Study**

Vanaja Narayanaswamy; Andrew Kurien; Mareeswari Paramasivan; Mathew Mathew; Mark Barba

Poster No. 571

**A Retrospective Single-center Review Of The Performance Of Polymer Embedded Biphasic Calcium Phosphate Bone Graft With Submicron Needle-shaped Topography Used Standalone In Transforaminal Lumbar Interbody Fusion**

Justin Davis; Brian Everist; Casey E. Butrico; Katherine Sage

Poster No. 572

**Assessment Of A Ni-free Beta Titanium Alloy As An Alternative Material To Nitinol For Bone Staples**

Emily Linder



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-017      Biomaterials - Repair/Replacement of Hard Tissues**

Poster No. 573

**Which Roll Does The Cell Count Play? Osteogenic Potential Of Bone Marrow MSC/ABC5<sup>+</sup> MSC Co-cultures Treated With Mitomycin C To Prevent Proliferation**

Jakob Hofmann; Tim Bewersdorf; Ulrike Sommer; Christian Schamberger; Gerhard Schmidmaier; Tobias Grossner

Poster No. 574

**The Effect Of Local Administration Of MicroRNA On The Fixation Strength Of Artificial Joint Implants And Peri-implant Bone In Ovariectomized Rat Model Of Osteoporosis.**

Shinichi Ueki; Takeshi Shoji; Hiroki Kaneta; Hideki Shozen; Nobuo Adachi

Poster No. 575

**Co-delivery Of Mesenchymal Stem Cells And Disordered Peptides Attenuates The Inflammatory Response And Improves Fracture Healing In Polytrauma**

Augustine Saiz; Maryam Rahmati; Oystein Ovrebø; Tony Baldini; Soren Johnson; Mengyao Liu; Renato Reyes; Bhat Aneesh; Shierly Fok Lau; Mark Lee; Thaqif El Khassawna; D.C. Florian Wieland; Andre Lopes; Clement Blanchet; Kent Leach; Håvard Jostein Haugen

Poster No. 576

**Withdrawn**

Poster No. 577

**Polyphenol-mineral Particles Enhance Bone Healing Process Via Immunomodulation And Bone Induction**

Hyewoo Jeong; Heungsoo Shin

Poster No. 578

**The Bone Repair Through The Polarization Of Macrophages On Osteoporotic Vertebral Defects In Rats By Platelet-rich Plasma And Cotton-like Beta-tricalcium Phosphate/poly(lactic-co-glycolic) Acid Fibers**

Yuichi Shimizu; Masateru Nagae; Hidenobu Ishibashi; Nobuaki Takeura; Takahiro Morita; Munehiro Sakata; Masaki Tanaka; Kenji Takahashi



## LIST OF POSTERS

### Saturday, February 8, 2025

10:00 AM - 7:30 PM

Room #: North Hall A-C

#### **PS1-018      Biomaterials - Repair/Replacement of Soft Tissues**

Poster No. 579

##### **Effect Of Polydeoxyribonucleotide And Polynucleotide Combined With Platelet Rich Plasma On Healing And Fatty Degeneration Of Rotator Cuff In Rat Model**

Jung-Taek Hwang

Poster No. 580

##### **Effect Of Albumin Platelet-Rich Fibrin On Human Chondrocyte Proliferation And Migration**

Parker Bogues; Madelayne F. Watt; Aaron J. Tabor; Robert S. Kellar

Poster No. 580A

##### **Fabrication Of Collagen Tissue With Strength Comparable To Native Human Ligaments**

Yoshikazu Ohashi; Takashi Suzuki; Jeonghyun Kim; Takeo Matsumoto; Masaomi Saeki; Eijiro Maeda

Poster No. 581

##### **Evaluation Of Whip Stitch Reinforcement In Cadaveric Semitendinosus Grafts**

Miguel A. Diaz; Pablo Sanchez-Urgelles; Josué G. Layuno-Matos; Neil Kumar

Poster No. 582

##### **Platelet Lysate Incorporation For Reduced Contraction And Enhanced Cellular Behavior In Cartilage Repair**

Hanna Solomon; Julie Gordon; Maddie Hasson; Hannah Arnade; Jordan Parker; Beatriz Dias; Xander Patton; John Peroni; Jay Patel

Poster No. 583

##### **Advanced Collagen Scaffold For Soft Tissue Augmentation**

Austin Johnson; Michael Valentine; Davorka Softic; Amanda Pomposini; Jennifer Morse; Amanda Burnette; Xiaofei Qin

Poster No. 584

##### **Repeat Use Of Autologous Thrombin System Produces Functional Sera**

Haley K. Brouwer; Kayla Livingston



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-019      Biomaterials - Scaffolds**

Poster No. 585

**Localized Delivery Of Inducible BMP2-Lentivirus Using Macroporous Chitosan-agarose-gelatin Cryogel Scaffolds For Treatment Of Atrophic Nonunion Fracture In Mice**

Leyi Chen; Yu Seon Kim; Katherine Hixon; Nicole Gould; Andre Coello; Mariam Obajj; Farshid Guilak; Matthew Silva

Poster No. 586

**Development Of Biomimetic Periosteum Scaffolds Using Melt Electrowriting Pcl Membranes Integrated With Bioprinted Hydrogels**

Xinggui Tian; Yakui Liu; Corina Vater; Michael Gelinsky; Stefan Zwingenberger

Poster No. 587

**Combining The Induced Membrane Technique With A Patient-Individually 3D-Printed Polycaprolactone Scaffold And Bioactive Glass For Treatment Of A Large-size Femur Defect: Is This The Future Of Large-size Bone Defect Therapy?**

Tim N. Bewersdorf; Jessica Boepple; Christian Schamberger; Thomas Ferbert; Josephina Deickert; Gerhard Schmidmaier; Sebastian Findeisen

Poster No. 588

**Development Of A Composite 3d Printed Microfibrous And Supramolecular Hydrogel Layered Construct To Promote Zonal Regeneration Of Osteoarthritic Cartilage**

Franz A. Lobianco; Hadeel J N Abu Shaqrah; Robert Murphy; John O'Byrne; Oran Kennedy; Shane Browne; Tom Hodgkinson

Poster No. 589

**In Vivo Assessment Of A Load Bearing Biphasic Braided Collagen Scaffold For Repair Of Irreparable Rotator Cuff Defects**

Joohee Choi; Phillip E. McClellan; Christian T. Denny; Di Fan; Robert J. Gillespie; Subba Shankar; Ozan Akkus

Poster No. 590

**Synovial Stem Cell-derived Extracellular Vesicles Enhance Ecm Production In Cell-laden Nanofiber Scaffolds**

As of 2.5.2025





## LIST OF POSTERS

Daniella V. Davia; Pooja Swami; Henintsoa Fanjaniaina Andriamifidy; Haixiang Liang; Daniel Grande

Poster No. 591

**Withdrawn**

Poster No. 592

**Characterization Of A Biodegradable 3d Printing Filament For Tissue Engineered Intervertebral Disc**

Elyse Fleck; Leonardo Campos; Maho Koga; Nadeen Chahine

Poster No. 593

**Tunable Hyaluronic Acid Based Hydrogels As A Chondro-inductive Matrix To Generate Bioengineered Cartilage**

Thomas J. Manzoni; Aditya Natu; Anh Ho; Lilly Smull; Yinzhi Fang; Joseph Fox; Alvin Su; Xinqiao Jia; Justin Parreno

Poster No. 594

**Regenerative Capabilities Of Human Chondrocytes And Synovial Stem Cells In 2d Culture Vs 3d Nanofiber Scaffold Culture**

Daniella Davia; Pooja Swami; Henintsoa Fanjaniaina Andriamifidy; Haixiang Liang; Daniel Grande

Poster No. 595

**Converging Lift And Mew For Accurate Acpc Aggregate Deposition Into A Mechanically Stable Framework**

Mylene de Ruijter; Antonia Vasilopoulou; Gines Rodriguez Nuria; Lennard Spauwen; Riccardo Levato; Jos Malda

Poster No. 596

**3D-printed Functionally Graded Lattice Structure With High Friction Characteristics**

Samuel Fang



## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-020      Education and Outreach - Basic Science Education**

Poster No. 597

**Predicting Academic Productivity Among Hand Surgeons From Publications Acquired Before And During Surgical Training**

Sameer R. Khawaja; Will Samady; Krishna N. Chopra; Zaamin B. Hussain; Joanne Zhou; Kier Blevins; Michael Gottschalk; Eric R. Wagner



## LIST OF POSTERS

### Saturday, February 8, 2025

10:00 AM - 7:30 PM

Room #: North Hall A-C

#### **PS1-021 Education and Outreach - Clinical Education**

Poster No. 598

##### **Geographic Location Significantly Impacts Academic Productivity Of Pediatric Orthopaedic Surgeons**

Michael K. Viggiano; McKenzie A. Mayer; Patrick M. Pema; Kevin M. Posner; Alexander Rompala; Suleiman Y. Sudah; Avrum Joffe

Poster No. 599

##### **Surgical Instrument Tray Optimization Reduces Operating Room Costs And Carbon Footprint Of Total Joint Arthroplasty**

Matthew S. Rohde; Ryan Ott; Alexandra Krez; Sohrab Virk; Jonathan R. Danoff

Poster No. 600

##### **Does The Presence Of Residents Impact Surgical Outcomes In Hip Fracture Treatment?**

Majd Mzeihem; Jospheh Karam; Farid Amirouche

Poster No. 601

##### **Comparison Of In-person And Remote Orthopaedic Surgical Resident Education For Performance On The Orthopaedic In-training Examination**

Brett K. Segobiano; Jamal Ahmad; Nirav Mungalpara; Alfonso Mejia

Poster No. 602

##### **Writing A Recommendation Letter Without Bias**

Kelly Bach; Nesa Milan; Andrew Gatto; Brian Feeley

Poster No. 603

##### **The Validation And Development Of A Tactile, 3D Printed K-wire Pinning Simulator**

Husain A. Rasheed; Sanjna Chokshi; Demetri Monovoukas; Deborah Rooney; Noelle Whyte



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-022      Imaging - Hard Tissue**

Poster No. 604

**Comparison Of 3d Reconstructed Images Of Zero Echo Time Sequence Mri And Ct In The Evaluation Of Tibial Tunnel Position After Anterior Cruciate Ligament Reconstruction**

Susumu Wada; Yu Otake; Ikko Takada; Suguru Kawanishi; Taiki Nozaki; Atsushi Tasaki; Nobuto Kitamura

Poster No. 605

**Automated Segmentation Of Long Bones In Ultrasound Images: Comparing Segmentation Performance Of Four State-of-the-art Clinically Used Pretrained Convolutional Neural Networks**

Irene Yang; Russell Buchanan; Kianoush Nazarpour; Hamish Simpson

Poster No. 606

**Patient-specific Calibration In Retrospective CT Data: Standardization Of Preoperative CT Scans For Imaging Assessments In Shoulder Arthroplasty.**

Daniel Ritter; Patric Raiss; Coen Wijdicks; Samuel Bachmaier

Poster No. 607

**Facet Joint Space Measurement Using Digital Tomosynthesis While Standing**

Yener N. Yeni; Daniel Oravec; Razeen Zaman; George Divine; Sudhaker Rao; Victor Chang

Poster No. 608

**In Vivo Hip Fracture Strength Assessment From Microstructural MR Images Acquired In A Six-minute Scan**

Brian-Tinh D. Vu; Christiana Cottrell; Alyssa Rosen; Iris Yang; Jianna Kim; Priya Agarwal; Tiffany Tu; Dylan Bellissimo-Meade; Eva Gonzalez-Whitehouse; Frank Pham; Charlee Cheng; Makayla Clark; Jayden Chen; Scott Calhoun; Rahul Sivakumar; Chamith S. Rajapakse



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-023      Imaging - Image Analyses**

Poster No. 609

**A Longitudinal Analysis Of MRI Texture Of Trabecular Bone Surrounding Total Hip Arthroplasty**

Jack Consolini; Elizabeth G. Koretsky; Hollis G. Potter; Matthew F. Koff

Poster No. 610

**A Longitudinal Analysis Of Radiographic Texture Of Trabecular Bone Surrounding Total Hip Arthroplasty**

Jack Consolini; Elizabeth G. Koretsky; Hollis G. Potter; Matthew F. Koff

Poster No. 611

**SlicerautoscoperM - A Software Environment For Tracking Skeletal Structures In Videoradiography Datasets**

J J Trey Crisco; Amy Morton; Kristin Zhao; Cesar Lopez; Douglas Moore; John Holtgrewe; Jillian Beveridge; Jean-Christophe Fillion-Robin; Anthony Lombardi; Beatriz Paniagua; Dajung Yoon; Michael Rainbow

Poster No. 612

**An Artificial Intelligence Approach To Automatically Measure Ultrasound Dynamics Of Patellar Instability**

Xingxin He; Nikitha Crasta; Uday Girish Maradana; Kartik Varadarajan; Miho Tanaka; Fang Liu

Poster No. 613

**Using Deep Learning For Diagnosis Of Medial Meniscus Posterior Root Tear On Magnetic Resonance Imaging**

Yuta Nakanishi; Takehiko Matsushita; Atsuyuki Inui; Kyohei Nishida; Kanto Nagai; Yuichi Hoshino; Ryosuke Kuroda

Poster No. 614

**Impact-induced Microstructural Transformations In Rabbit Knee Joint**

Amanveer Singh; Farid Badar; Austin Tetmeyer; Michael Newton; Kevin Baker; Yang Xia

Poster No. 615



## LIST OF POSTERS

**Dynamic 4d Computed Tomography Can Measure Increased Ventilation Heterogeneity In Thoracic Insufficiency Syndrome Rabbit Model**

Jacob Jordan; Klaus Hopster; Mostafa Ismail; Kai Ruppert; Fazaz Amzajerian; Hooman Hamedani; Madeline Boyes; Brian Snyder; Thomas Schaer; Patrick Cahill; Rahim Rizi

Poster No. 616

**Deep Learning To Predict Hip Osteoarthritis Using Lumbar Spine X-rays.**

Masashi Tsujino; Terufumi Kokabu; Katsuhisa Yamada; Hisataka Suzuki; Ryo Itoga; Takahiko Hyakumachi; Yasushi Yanagibashi; Norimasa Iwasaki

Poster No. 617

**Definition Of Diagnostically Important Images In Medial Elbow Ultrasonography And Attempts To Reproduce Images Using A Motion Capture System**

Shotaro Teruya; Yuichi Yoshii; Akira Ikumi; Yasukazu Totoki; Ryuhei Michinobu; Junichiro Morita; Tooru Uchida

Poster No. 618

**Apoptosis In Trabecular Bone And Epiphyseal Bone Marrow Is Limited Despite An Extended Postmortem Interval At Room Or Refrigeration Temperature**

Alexandra R. Armstrong; Godson Aryee; Erick O. Buko; Ferenc Toth; Casey P. Johnson

Poster No. 619

**Effect Of Radiographic Malpositioning On The Measurement Of Tibial Slope: An In Silico Approach**

Caroline Taber; Juliet Allen; Hui Zhang; Thomas Gardner; Lauren Redler

Poster No. 620

**18f-fluorodeoxyglucose Uptake Can Differentiate Schwannomas From Meningiomas**

Takeru Akabane; Tomoto Suzuki; Hiromori Sagae; Yuto Chiba; Michiaki Takagi

Poster No. 621

**Characterization Of Knee Nerve Innervation In An Aging Osteoarthritis Mouse Model By 3D Imaging In Light Sheet Microscopy**

PAROMITA KUNDU; Yaxin Zhang; Mark James; Jennifer Jonason; Mark Buckley; Whasil Lee

Poster No. 622

**Regional Variation Of Bone Mineral Density In The Human Cranium: A Pilot Study**

Ryan S. Garay; Randal P. Morris; Ronald W. Lindsey; Abeer Albarghouthi; Loren L. Latta; Francesco Travascio



## LIST OF POSTERS

Poster No. 623

**A Novel One-step Pipeline For Automated 3d Printing Of Patient-specific Models With Preserved Volumetric Density From Medical Imaging Data**

Krunal Patel; Grace Deng; Gregory Datto; Chamith Rajapakse

Poster No. 624

**Advancing Pediatric Distal Radius Fracture Detection Through Ai And New Refined Machine Learning Techniques.**

Farid Amirouche; Aashik Mathew Prosper; Majd Mzeihem

Poster No. 625

**Lumbar Spine T2-weighted Mri Radiomics Successfully Classify Intervertebral Disc Degeneration In The Northern Finland Birth Cohort 1966**

Terence P. McSweeney; Narasimharao Kowlagi; Juhani Määttä; Aleksei Tiulpin; Jaro Karppinen; Simo Saarakkala

Poster No. 626

**Association Between Skin Ultrasound Parameters And Patients With Osteoporosis On Anti-osteoporotic Medications Undergoing Lumbar Fusion Surgery**

Erika A. Chiapparelli; Krizia Amoroso; Ali E. Guven; Ranqing Lan; Vidushi Tripathi; Gisberto Evangelisti; Paul Kohli; Jan Hambrecht; Bruno Verna; Koki Tsuchiya; Jiaqi Zhu; Jennifer Shue; Andrew A. Sama; Federico P. Girardi; Frank P. Cammisa; Alexander P. Hughes

Poster No. 627

**Alcohol Abuse And Collagen Disruption: Effects On Skin Ultrasound Parameters In Lumbar Fusion Patients**

Erika A. Chiapparelli; Ranqing Lan; Krizia Amoroso; Ali E. Guven; Gisberto Evangelisti; Paul Kohli; Jan Hambrecht; Bruno Verna; Koki Tsuchiya; Jiaqi Zhu; Jennifer Shue; Andrew A. Sama; Federico P. Girardi; Frank P. Cammisa; Alexander Hughes

Poster No. 628

**Developing Artificial Intelligence For Diagnostic Assistance In Surgical Method Selection For Proximal Femur Fractures**

Yutaro Sugawara; Yoshio Nishida; Kosuke Arita; Yusuke Ohashi; Hotaka Ishizu; Katsuhisa Yamada; Norimasa Iwasaki; Xiangqian Che; Saeka Nakamura; Tomohiro Shimizu

Poster No. 629

**Design And Dimensional Accuracy Of 3D Printed Molds For Bone Cement Hip Spacers**



## LIST OF POSTERS

Gregory R. Roytman; Meera M. Dhodapkar; Kalina Mladenova; Suhail Irshad; Alyssa Glennon; Steven M. Tommasini; Daniel H. Wiznia

Poster No. 630

**Can Deep Learning With Convolutional Neural Networks Detect Lumbar Disk Herniation?**

Ryo Itoga; Terufumi Kokabu; Katsuhisa Yamada; Hisataka Suzuki; Masashi Tsujino; Takahiko Hyakumachi; Yasushi Yanagibashi; Norimasa Iwasaki

Poster No. 631

**Estimation Of Forearm Pronation And Supination Angles Using A Pose Estimation Model With Artificial Intelligence**

Masaya Kusunose; Atsuyuki Inui; Yutaka Mifune; Kohei Yamaura; Tatsuo Kato; Takahiro Furukawa; Shuya Tanaka; Yutaka Ehara; Shunsaku Takigami; Shin Osawa; Daiji Nakabayashi; Ryosuke Kuroda

Poster No. 632

**Which Fat Suppression Techniques Are Being Used In Mri Imaging Of Traumatic Brachial Plexus Injuries? - A Systematic Scoping Review.**

Brian Molokwu; Benjamin Park; Rohan Suresh; Spencer Moore; Dhiraj Sibala; Alice Chu; Pawel Szaro; Aleksandra McGrath

Poster No. 633

**A Novel Machine Learning Model For Accurate Automated Segmentation Of Damaged Myofiber Of Irregular Morphology**

Gardner G. Rees; Orhan Hosten-Mittermaier; Sankalp Sharma; Hanzhi Zhang; Brian Feeley; Xuhui Liu

Poster No. 634

**Reference Global Sagittal Alignment Parameters Stratified By Age And Sex In Patients Without Spinal Deformity**

Alexander Yu; Akiro Duey; Timothy Hoang; Yash Lahoti; Mark Kurapatti; Kareem Mohamed; Ryan Hoang; Junho Song; Ula Isleem; Samuel Q. Li; Jun Kim; Samuel Cho





## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-024      Imaging - Soft Tissue**

Poster No. 635

**The Imaging Characteristics Of Solitary Schwannoma On <sup>18</sup>F-FDG-PET/CT**

Yuta Miyashi; Yasunori Tome; Kotaro Nishida; Hiromichi Oshiro; Kohei Mizuta; Hirotaka Okubo; Yoshiro Yoshikawa; Ryo Katsuki

Poster No. 636

**Early Onset Of Ptoa Due To Acl Transection In Rabbit Model Detected By  $\mu$ Mri**

Austin D. Tetmeyer; Amanveer Singh; Michael Newton; Kevin Baker; Hannah Mantebea; Farid Badar; Yang Xia

Poster No. 637

**Advanced In-vivo Imaging Of Cartilage Extracellular Matrix Of The Whole Knee Joint**

Albert Jang; Nian Wang; Fang Liu

Poster No. 638

**Quantitative Signal Intensity Of The Repaired Posterior Roots After Transtibial Pullout Repair For Medial Meniscus Posterior Root Tears Improves Over The 3-year Postoperative Period**

Koki Kawada; Takayuki Furumatsu; Masanori Tamura; Yuki Okazaki; Yusuke Yokoyama; Toshifumi Ozaki



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-025 Intervertebral Disc - Diseases and Disorders**

Poster No. 639

**Bacterial Presence Within The Intervertebral Disc And Their Potential Effect**

Andrea Nuesch; Maria Paola Ferri; Exarchos Kanelis; Leonidas G. Alexopoulos; Frances M.K. Williams; Benjamin Gantenbein; Mel Lacey; Christine L. Le Maitre

Poster No. 640

**Modic Type 1 Change Bone Marrow Contains More Plasmacytoid Dendritic Cells Which Overexpress Toll Like Receptor 4 And Show Decreased Responsiveness To Toll-like Receptor 4 Stimulation**

Irina Heggli; Jan Devan; Dominik Burri; Nick Herger; Tamara Mengis; Kenta Brender; Oliver Distler; Mazda Farshad; Stefan Dudli

Poster No. 641

**Transcriptional And Cytokine Analyses Reveal Diverse Inflammatory And Degenerative Processes In The Intervertebral Disc Of The STZ-HFD Mouse Model Of Type 2 Diabetes**

Christian Gonzalez; Rachana Vaidya; Simon Tang

Poster No. 642

**Validation Of A Novel Microfluidic Device For Interrogating Neuronal Functions In Musculoskeletal Disorders**

Olanrewaju Akande; Lawrence Amadi; Bryce Stottlemire; Cory Berkland; Simon Tang; Lori Setton

Poster No. 643

**Krüppel-Like Factor 4 Promotes Intervertebral Disc Health By Enhancing Expression Of Critical Extracellular Matrix Components And Repressing Genes Involved In Stress Response And HIF1 Signaling**

Hannah Swahn; Merissa Olmer; Chelsea Kenvisay; Kevin Myers; Jasmin Mertens; Martin Lotz

Poster No. 644

**Tip60 A Cognate Histone Lactyltransferase In Nucleus Pulposus And Annulus Fibrosus Cells**

Peng Feng; Dong Wang; Joon Lee; Gwendolyn Sowa; Nam Vo



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-026 Intervertebral Disc - Growth, Development and Aging**

Poster No. 645

**Decreased Ezh2 Expression Impairs Mitosis And Cell Cycle Process Through Noncanonical Mechanisms In Senescent Npmscs: Based On Rna-seq And Cut&Tag**

Zetao Ma; Zhen Tan; Jianrui Zheng; Deli Wang

Poster No. 646

**Distinct Role Perlecan Plays In Mesenchymal Tissue Regeneration Through Genetic And Epigenetic Modification**

Ming Pei; Bin Wang; Zhihua Lu; Gongming Gao; Qingqing Yu; Zhuo Wang

Poster No. 647

**CRISPR Regulation Of ZNF865 (BLST) Rescues Human Nucleus Pulposus Cell Populations From Senescence**

Christian Lewis; Jake Polaski; Brandon Lawrence; Robert Bowles

Poster No. 648

**Characterization Of Mesenchymal Stem Cells In Nucleus Pulposus Tissue**

Caleb C. Witsken; Weijia Zhou; Kathy B. Cao; Srihar Chilukuri; Lorenzo Deveza

Poster No. 649

**Moderate-Intensity Exercise Suppresses The Progression Of Intervertebral Disc Degeneration In A Rat Model**

Nobuaki Takeura; Hitoshi Tonomura; Masateru Nagae; Hidenobu Ishibashi; Yuichi Shimizu; Takahiro Morita; Masaki Tanaka; Kenji Takahashi



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-027 Intervertebral Disc - Injury, Healing and Pain**

Poster No. 650

**Serpina1a Deletion Exacerbates Age-related Myeloid Cell Recruitment In Response To Intervertebral Disc Injury**

Tori Kroon; Jazz Munitz; Anna Ranzenigo; Martin Umali; William Wang; Abraham Teunissen; Nilsson Holguin

Poster No. 651

**Intervertebral Disc Injury And Local Inflammation Severity Impact Systemic Inflammation**

Lauren Lisiewski; Mark (Min Kyu) Kim; Nadeen Chahine

Poster No. 652

**A Microfluidic Organ-on-a-chip Model To Study Disc-neuron Interactions In Discogenic Pain**

Yuan Xing; Jasmine Xiao; Yi Zhang; Li Jin; Xudong (Joshua) Li

Poster No. 653

**Investigating The Role Of Chondroitin Sulfate In Preventing The Development Of Disc-associated Low Back Pain In A Male And Female Rat Model**

Evie C. Reddick; Anjeza Erickson; Rebecca A. Wachs



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-028 Intervertebral Disc - Structure, Function and Mechanics**

Poster No. 654

**Investigation Of Lumbar Intervertebral Disc Height Recovery Following Controlled Exercise In Vivo**

Nicole E. Zimmer; Andrzej S. Kosinski; Charles E. Spritzer; Adam P. Goode; Louis E. DeFrate

Poster No. 655

**Low-magnitude High-frequency Vibration Promotes Nucleus Pulposus Cell Proliferation And Matrix Degradation In A Degenerative Organ Culture Model Of Bovine Intervertebral Disc**

Graciosa Q. Teixeira; Felizitas Figel; Jan U. Jansen; Franziska Widmayer; Luisa Schurr; Hans-Joachim Wilke; Anita Ignatius; Melanie Haffner-Luntzer; Cornelia Neidlinger-Wilke

Poster No. 656

**Agonist-induced Activation Of Transient Receptor Potential Vanilloid 4 Promotes Autophagy And Extracellular Matrix Synthesis Via Ampk Pathway In Rat Intervertebral Disc**

Kohei Kuroshima; Yoshiki Takeoka; Takashi Yurube; Takeru Tsujimoto; Yutaro Kanda; Kunihiko Miyazaki; Tomoya Matsuo; Masao Ryu; Naotoshi Kumagai; Yoshiaki Hiranaka; Masahiko Furuya; Daisuke Nakagawa; Yu Inoue; Ryosuke Kuroda; Kenichiro Kakutani

Poster No. 657

**Influence Of Simultaneous Compressive Loading On The Failure Of The Annulus Fibrosus**

Craig Almeida; Jill Middendorf

Poster No. 658

**Cartilage Endplates In Ex Vivo Bovine Tail Intervertebral Disc Degeneration Model: A 3d Contrast-enhanced Micro-CT Imaging Approach**

Valtteri Peitso; Shuvashis Das Gupta; Maija Risteli; Mikko Finnilä; Ali Mobasheri

Poster No. 659

**Position-Dependent Change In Intervertebral Disc Elasticity: A Shear Wave Elastography Study In Young Adults**

Maiko Yasumizu; Yusuke Aoki; Koichi Shimabukuro; Takanao Shimabukuro; Hideo Kinjo; Yoshimaro Miyahira; Kotaro Nishida



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-029 Intervertebral Disc - Treatment and Therapeutics**

Poster No. 660

**Combined Anti-inflammatory And Anti-depressant Treatment Reduces Pain And Central Sensitization In A Rat Model Of Chronic Discogenic Pain**

Alon Lai; Denise Iliff; Irina Heggli; Venetia Zachariou; Andrew Hecht; James Iatridis

Poster No. 661

**Anti-sclerostin Antibody Injections Promote Vertebral Bone Structure And Reduce Pain-like Behavior In Mature Mice**

Tori Kroon; Janai Augustin; Nilsson Holguin

Poster No. 662

**Selective Rna Interference Of Raptor/mTORC1 Alleviates The Onset Of Disc Degeneration And Ameliorates The Microenvironment Of Degenerated Discs In A Rat Tail Temporary Static Compression Model**

Naotoshi Kumagai; Takashi Yurube; Masao Ryu; Yoshiki Takeoka; Yutaro Kanda; Takeru Tsujimoto; Kunihiro Miyazaki; Tomoya Matsuo; Kohei Kuroshima; Yoshiaki Hiranaka; Yu Inoue; Masahiko Furuya; Daisuke Nakagawa; Ryosuke Kuroda; Kenichiro Kakutani

Poster No. 663

**IL-1beta Treatment And Degeneration Increase Mitochondrial Transfer From Mesenchymal Stromal Cells To Intervertebral Disc Cells**

Ashley Cardenas; Jessica Berger; Blake Boadi; Anthony Robayo; Chibuikem Ikwuegbuenyi; Ibrahim Hussain; Roger Hartl; Lawrence Bonassar

Poster No. 664

**Mutation Of Serpina1 Induces A Clinical Spinal Pathology That May Be Normalized By Augmentation Therapy Or Raloxifene**

Janai A. Augustin; Neharika Bhadouria; Joana Almeida; Tori Kroon; Niklas Koehne; Ramone Brown; Nilsson Holguin

Poster No. 665

**Assessing Cell Therapy Retention And Survival Across A Spectrum Of Intervertebral Disc Degeneration In Rabbits**

As of 2.5.2025



## LIST OF POSTERS

---

Matthew Fainor; Aira Bazaz; Harvey Smith; Sarah Gullbrand

Poster No. 666

**Tocopherol Delays Intervertebral Disc Degeneration By Inhibiting Ferroptosis In Nucleus Pulposus Mesenchymal Stem Cells**

Deli Wang; Zhigang Peng; Jianrui Zheng; Zhen Tan; Gensen Ye

Poster No. 666A

**Suppression Of Transient Receptor Potential Vanilloid 4 (trpv4) Decelerates Extracellular Matrix Synthesis By Inhibiting Autophagy In The Rat Intervertebral Disc**

Tomoya Matsuo; Yoshiki Takeoka; Takashi Yurube; Takeru Tsujimoto; Yutaro Kanda; Kunihiro Miyazaki; Masao Ryu; Naotoshi Kumagai; Kohei Kuroshima; Yoshiaki Hiranaka; Daisuke Nakagawa; Masahiko Furuya; Yu Inoue; Kenichiro Kakutani; Ryosuke Kuroda

Poster No. 667

**Microenvironmental Control Of Rhoa And Actomyosin Contractility In Nucleus Pulposus Cells**

Gabriella Bond; Helna Mary Baby; Ambika Bajpayee; Nadeen Chahine

Poster No. 668

**Rna Sequencing Of Crispr-tnfr1 Edited Human Nucleus Pulposus Cells Shows Shift Of Tnf- $\alpha$  From Pro-inflammatory To Anti-inflammatory Via Potential Tnfr2 Signaling Mediated By Tnfaip3**

Matthew Trone; Niloofar Farhang; Joshua Stover; Brandon Lawrence; Robert Bowles



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-030      Spine - Diagnostics**

Poster No. 669

**A Comparison Of Methods For Analyzing Accelerometry Data In Persons With Chronic Low Back Pain**

Simran Kulkarni; Meenakshi Sundaram; Alfikri Zakiy; Carol Greco; Kevin Bell

Poster No. 670

**An Algorithm For Creating The Imitate 3d Mri/ct Fusion Images From The Plain Ct Of Lumbar Spine Using Generative Adversarial Networks**

Terufumi Kokabu; Soya Miura; Koji Kato; Yuichiro Abe; Yoshinori Hyugaji; Ken Nagahama; Ryo Itoga; Masashi Tsujino; Hisataka Suzuki; Yasushi Yanagibashi; Takahiko Hyakumachi; Norimasa Iwasaki; Katsuhisa Yamada

Poster No. 671

**Sexual Differentiation In Pathomechanisms Of Sacroiliac Joint Dysfunction: ROM, Coupling, And Stability**

Oluwatodimu R. Raji; Sarah Mayer; Joshua Tandio; Jeremi Leasure

Poster No. 672

**Valid Measurement Of Spino-pelvic Motion From Smartphone Videos With Opencap**

Dennis E. Anderson; Josephine Taylor

Poster No. 673

**Effect Of Serum Glucose Level On The Secretome Of Symptomatic Intervertebral Disc Tissues**

Jacob Kramer; Aaron Stoker; Abigail Baumann; Chantelle Bozynski; Theodore Choma; Don Moore; James Cook

Poster No. 673A

**Accuracy Of 2d Sagittal Radiologic Analysis Versus 3d Templating For Pedicle Screw Fixation Of C2 Vertebral Body**

Adarsh Suresh; Takashi Hirase; Scott A. Buhler; Rex AW Marco

Poster No. 674

**Does Preoperative Myelomalacia Impact Outcomes Following ACDF?**





## LIST OF POSTERS

---

Robert J. Oris; Jonathan Dalton; Rajkishen Narayanan; Joydeep Baidya; Chloe Herczeg; Jarod Olson; Rachel Huang; Brady Kwong; Conor Dougherty; Jose Canseco; Alan S. Hilibrand; Alexander R. Vaccaro; Christopher Kepler; Gregory Schroeder

Poster No. 675

**Cervical Paraspinal Muscles Quality In Orthopedic Dropped Head Patients: A Propensity Score Matching**

Bruno Verna; Thomas Caffard; Artine Arzani; Lukas Schönnagel; Ali E. Guven; Krizia Amoroso; Erika Chiapparelli; Ranqing Lan; Jiaqi Zhu; Jennifer Shue; Andrew A. Sama; Federico P. Girardi; Cammisa P. Frank; Alexander P. Hughes

Poster No. 676

**Association Between Subaxial Paraspinal Muscle Parameters And Cervical Vertebral Bone Quality In Preoperative Patients**

Bruno Verna; Artine Arzani; Thomas Caffard; Vidushi Tripathi; Erika Chiapparelli; Jiaqi Zhu; John Carrino; Jennifer Shue; Andrew A. Sama; Frank P. Cammisa; Federico P. Girardi; Alexander Hughes



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-031 Spine - Growth, Development and Aging**

Poster No. 677

**Introducing The Paraspinal Muscle Quality (PMQ) Score: A Novel T2-mri Based Intensity Parameter For Assessing Spinal Sarcopenia**

Ali E. Guven; Kyle Finos; Isaac Nathoo; Marco Burkhard; Erika Chiapparelli; Paul Köhli; Jan Hambrecht; Bruno Verna; Koki Tsuchiya; Jennifer Shue; Andrew Sama; Federico Girardi; Frank P. Cammisa; Alexander Hughes

Poster No. 678

**Does Cutibacterium Acnes (c. Acnes, Formerly Propionibacterium Acnes) Play A Role In Degenerative Disc Disease?**

Lancelot Benn; Mina Botros; Amy Phan; Noorullah Maqsoodi; Karim Elmobdy; Addisu Mesfin

Poster No. 679

**Risk Model Prediction For Proximal Junctional Kyphosis (pjk) Following Spine Deformity Surgery In Spinal Muscular Atrophy (sma) Patients With Early Onset Scoliosis (eos)**

Hiroko Matsumoto; Taylor-Marie Adams; Lennert Plasschaert; Sydney Lee; David Liu; Brian Snyder

Poster No. 680

**The Association Between Handgrip Strength And Degenerative Cervical Myelopathy**

Hirokazu Inoue; Yukinori Hayashi; Hideaki Watanabe; Hideaki Sawamura; Atsushi Kimura; Hitoshi Okami; Mitsuya Morita; Katsushi Takeshita

Poster No. 681

**Verification Of New School Screening For Scoliosis Using A Medical Device**

Kazuta Yamashita; Yutaka Kinoshita; Saori Soeda; Masatoshi Morimoto; Fumitake Tezuka; Koichi Saiyo

Poster No. 682

**Withdrawn**



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-032 Spine - Injury, Healing and Pain**

Poster No. 683

**Intervertebral Disc Degeneration: Evaluation Of Risk Factors And Familial Risk Quantification In A Large Population-based Cohort**

Mick Jurynek; Nikolas Kazmers

Poster No. 684

**Risk Factors For Venous Thromboembolism In Patients With Acute Cervical Spine Fracture**

Allen Zou; Emily Adams; Leila Erbay; Andrew Li; Antonio Lobao; Daniel Chen; Mohamed Yousef; Robert Shepard; Raj Gala; Michael P. Stauff

Poster No. 685

**Inflammatory Effect Of CD38 Mediated By Metabolic Reprogramming Of Macrophages In Spinal Cord Injury**

Junchao Luo; Chaowen Bai; Xiang Gao; Jinyu Bai; Qin Shi; Xiaozhong Zhou

Poster No. 686

**Risk Factors For Postoperative Neurological Complications In Lumbar Discectomy**

Cameron Eason; Nicholas Tsavaris; Dion Birhiray; Lorenzo Deveza

Poster No. 687

**The Gp-1 Receptor Agonist On Mitochondria Dysfunction After Spinal Cord Injury.**

Tatsuya Kishi; Hiroyuki Katoh; Kaori Suyama; Nobuaki Hattori; Okada Keiko; Toshihiro Noguchi; Masahiko Watanabe

Poster No. 688

**Unlocking The Healing Power: Targeted Delivery Of Hypoxic Nsc-derived Sevs For Spinal Cord Injury Repair**

Hongbin Lu

Poster No. 689

**Assessing Postoperative Pain Management In Spine Surgery Using The Detroit Interventional Pain Management Tool**

Cassandra Pino



## LIST OF POSTERS

---

Poster No. 690

**Income Predicts Low Back Pain But Not Lumbar Disc Height: Data From The UK Biobank Image Dataset**

Mary A. Bucklin; Ashrith Alavilli; Kastriot Kamberi; Rana A. Ahmad; Scott J. Simmons; John T. Martin

Poster No. 691

**Role Of Growth Hormone In Intervertebral Disc Degeneration**

Abhijit Sukul; Siqi Ren; Huanhuan Liu; Darlene E. Berryman; Patrick O' Patrick; John J. Kopchick; Shouan Zhu

Poster No. 692

**Molecular Comparison Of Iliac Crest And Cervical Spine Autologous Bone Grafts**

Haseeb E. Goheer; Sharon K. Michelhaugh; Jennifer M. Munson; Jonathan J. Carmouche

Poster No. 693

**Conditional Deletion Of Ikbz In Hematopoietic Cells Changes The Inflammatory Balance After Spinal Cord Injury And Promotes Functional Recovery**

Naoya Taki

Poster No. 694

**Intervertebral Disc-derived Vegfa Mediates The Propagation Of Vessels And Neurites During Painful Degeneration**

Ryan Potter; Remy Walk; Hong Joo Moon; Addison L. Liefer; Liufang Jing; Lori Setton; Munish Gupta; Simon Y. Tang



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-033 Spine - Structure, Function and Mechanics**

Poster No. 695

**Predicting Dynamic Adjacent Segment Kinematics One Year After Anterior Cervical Discectomy And Fusion**

Kimberly Hua; Clarissa LeVasseur; Samuel Pitcairns; William Donaldson; Joon Lee; William Anderst

Poster No. 696

**Comparison Of Human And Bovine Bony Endplate Microstructure Through Micro-ct, Light Microscope, And Scanning Electron Microscopy**

Danni J. Porter; Braden Trejo; Ashley Quinn; Megan Kerr; Anton Bowden

Poster No. 697

**Studying Spinal Stability Predictions With Biomechanical Modelling In Multiple Myeloma Case**

Alireza Gholipour; Ali Kiapour; Abigail Zhang; Daniel Tobert

Poster No. 698

**Impact Of Path Directionality On The Multiplanar Biomechanics Of The Cervical Spine Following Spinal Decompression Surgery**

Emma C. Coltoff; Benjamin S. Hezrony; Jonathan L. Wilson; Philip J. Brown

Poster No. 699

**The Impact Of Graded Facetectomy On Post-decompression Lumbar Spinal Stability: A Finite Element Analysis**

Hannah A. Levy; Matthew Lindsey; Timothy Rossman; Ahmad Nassr; Brian Karamian; Arjun Sebastian; Brett Freedman

Poster No. 700

**Position-specific Characteristics Of Sagittal Alignment In Professional Baseball Players**

KYOSUKE NUMAGUCHI; Daisuke Momma; Yuki Matsui; Keiko Goto; Eiji Kondo; Norimasa Iwasaki

Poster No. 701

**Changes In Static And Dynamic Balance In Adolescent Idiopathic Scoliosis Patients Before And After Deformity Correction Surgery**

Hazuki Soma; Jordy Schol; Daisuke Sakai; Masato Sato; Masahiko Watanabe

As of 2.5.2025



## LIST OF POSTERS

---

Poster No. 702

**Imaging Analysis To Unveil The Predisposing Factor Of Non-rheumatoid Retro-odontoid Pseudotumor**

Takaaki Fujiki; Satoshi Komatsubara; Shuji Yamamoto; Masakazu Ishikawa

Poster No. 703

**Surface Topography Demonstrates Gradual Improvement In Spinal Range Of Motion In All Three Planes Following Posterior Spinal Fusion In Adolescent Idiopathic Scoliosis**

Akshitha Adhiyaman; Gabriel S. Bartlett; Colson P. Zucker; Jenna L. Wisch; Ankush Thakur; Howard J. Hillstrom; Benjamin N. Groisser; Douglas N. Mintz; Matthew E. Cunningham; Ram Haddas; Michael Timothy Hresko; John S. Blanco; Joseph Nguyen; Roger F. Widmann; Jessica H. Heyer

Poster No. 704

**Biomechanical Evaluation Of Fully 3D Printable L1-S1 And L2-L5 Spine Surrogates In Pure Moment Loading**

Siril Teja Dukkupati; Mark Driscoll



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-034 Spine - Surgical and Non-Surgical Interventions**

Poster No. 705

**In Vitro Pedicle Screw Placement Using Robotic-assisted Navigation Is Superior In Accuracy, Precision And Breach Rates To Freehand And Ct-guided Navigation Techniques**

Gregory S. Kazarian; Benjamin N. Groisser; Ankush Thakur; Howard H. Hillstrom; Akshitha Adhiyaman; Olivia C. Tracey; Colson P. Zucker; Jenna L. Wisch; Matthew E. Cunningham; Michael Timothy Hresko; Ram Haddas; John Blanco; Douglas N. Mintz; Ryan E. Breighner; Roger F. Widmann; Jessica H. Heyer

Poster No. 706

**Relationship Of Psoas Morphology To Postoperative Psoas And Quadriceps Palsy After L4/5 Prone Lateral Interbody Fusion: Series Of 59 Consecutive Patients**

Mathew Mendoza; Corey F. Hryc; Andre Samuel

Poster No. 707

**Safety And Early Postoperative Course After Staged Three Level Prone Lateral Interbody Fusion**

Mathew Mendoza; Andre Samuel; Corey Hryc

Poster No. 708

**Mechanical Testing Of A Biomechanically Enhanced, Compliant, Non-fusion Lumbar Interbody Device**

Tyler Peterson; Anna Jensen; Daniel Orr; Anton E. Bowden

Poster No. 709

**In Vitro Testing Of A Novel Lumbar Spine Compliant Interbody Device Compared To Healthy Spinal Segments**

Anna Jensen; Daniel Orr; Tyler Peterson; Andrew Thomson; Ron Anderson; Anton E. Bowden

Poster No. 710

**Prediction Of Primary Admission Total Charges Following Cervical Disc Arthroplasty Utilizing Machine Learning**

Paul G. Mastrokostas; Leonidas E. Mastrokostas; Ahmed K. Emara; Ian J. Wellington; Brian T. Ford; Abigail Razi; John K. Houten; Ahmed Saleh; Jad Bou Monsef; Afshin E. Razi; Mitchell K. Ng

Poster No. 711



## LIST OF POSTERS

**Procedural, Reimbursement, And Geographic Trends In Adult Spinal Deformity Correction Surgery: A Medicare Analysis**

Paul G. Mastrokostas; Leonidas E. Mastrokostas; Ahmed K. Emara; Jonathan F. Dalton; John K. Houten; Jad Bou Monsef; Afshin E. Razi; Mitchell K. Ng

Poster No. 712

**Utilization Of Area Deprivation Index For Prediction Of Complications After Lumbar Fusion**

Eden N. VanderHoek; Amalia Larsen; Spencer Smith; Jung Yoo

Poster No. 713

**Withdrawn**

Poster No. 714

**Effectiveness Of Preoperative Halo-Gravity Traction In Spinal Muscular Atrophy Children With Early-Onset Scoliosis**

Lennert Plasschaert; Taylor Adams; Hiroko Matsumoto; Brian Snyder

Poster No. 715

**Correlation Between Quantitative Cage Pressures And Qualitative Evaluations Based On Extraction Strength In Lumbar Lateral Interbody Fusions: A Cadaveric Study**

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

Poster No. 716

**Subsidence Characteristics Of Intervertebral Devices Using A Multi Density Vertebral Model**

Antonio Valdevit; Joseph Turner; Charles Forton; Brandon Cook; James Rizkalla

Poster No. 717

**Comparison Of Rostral Facet Joint Violations In Robotic- And Navigation-assisted Pedicle Screw Placement For Adult Lumbar Spine Instrumentation**

Tiffany Perry; Paal Nilssen; Nakul Narendran; David Skaggs; Alexander Tuchman; Corey Walker

Poster No. 718

**Pediatric Patients With Arthrogyrosis Are At Increased Risk Of Reoperation Following Posterior Spinal Fusion For Deformity**

Julian Smith-Voudouris; Ally Yang; Jonathan N. Grauer; David B. Frumberg

Poster No. 719

**Basivertebral Radiofrequency Nerve Ablation: Who Is Getting The Procedure And Is It Associated With Reduced Opioid Utilization?**





## LIST OF POSTERS

---

Julian Smith-Voudouris; Anthony Seddio; Michael Gouzoulis; Arya G. Varthi; Jonathan N. Grauer

Poster No. 720

**Prediction Of The Cervical Spine Instability In Relation To The Facet Joint Resection Extent Of Foraminotomy By Using Finite Element Analysis**

Yurim Oh; Jiwon Kang; Yeojin Jeon; Sungjae Lee; Changkyu Lee; Seungjun Ryu; Nhat Duy Nguyen; Dong ah Shin



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-035      Bone - Diseases and Disorders**

Poster No. 721

**Chronic Alcohol Use Negatively Impacts Skeletal Structure And Mechanics In Crossed High Alcohol Preferring (chap) Mice**

Olivia N. Reul; Garrett A. Winkler; Katelynn R. Gallagher; Dyann M. Segvich; Nicholas J. Grahame; Joseph M. Wallace

Poster No. 722

**Prevalence, Risk Factors And Impact On Metabolic Bone Status Of Untreated Osteoporosis Prior To Lumbar Fusion Surgery**

Paul C. Köhli; Jan Hambrecht; Shu-Han Wang; Jiaqi Zhu; Erika Chiapparelli; Lukas Schönnagel; Ali E. Guven; Gisberto Evangelisti; Jennifer Shue; Koki Tsuchiya; Marco Burkhard; Matthias Pumberger; Andrew Sama; Federico Girardi; Frank Cammisa; Alexander Hughes

Poster No. 723

**The Role Of Bone Marrow Microenvironment In Osteogenesis Imperfecta: Evidence From Single-cell RNA Sequencing**

Zhiming Wu; Wouter Nijhuis; Karlijn Scheepens; Claudia Janda; Harrie Weinans; Ralph Sakkers; Kelly Warmink

Poster No. 724

**Binary Cre System Enabling Osteoclast Specific Gene Manipulation And Expression Profiling In Vivo**

Hideaki Sabe; Yasuhito Yahara; Masaru Ishii

Poster No. 725

**Cyclin-dependent Kinase Inhibitor-1-deficient Mice Are Susceptible To Osteoporosis In Mice Arthritis Model**

Kensuke Wada; Shinya Hayashi; Tomoyuki Matsumoto; Naoki Nakano; Yuichi Kuroda; Tomoyuki Kamenaga; Masanori Tsubosaka; Yuma Onoi; Shotaro Tachibana; Yoshihito Suda; Akira Saito; Takuma Maeda; Shotaro Araki; Kohei Motono; Ryosuke Kuroda

Poster No. 726

**Ezh2 Inhibitors Modulate Socs3/tlr4 Signaling Through H3k27me3 To Inhibit Macrophage Polarization To M1 And Delay The Progression Of Onfh**

As of 2.5.2025



## LIST OF POSTERS

Zhen Tan; Jianrui Zheng; Zhigang Peng; Zetao Ma; Deli Wang

Poster No. 727

**Osteoporosis Diagnosis Using Digital Wrist Tomosynthesis Imaging In Mammography Settings**

Yener N. Yeni; Daniel Oravec; Ram N. Yadav; Terra Cushman; Sudhaker Rao

Poster No. 728

**Fibroblastogenic Or Osteofibrotic ? That Is The Question**

Vincentius Suhardi; Anastasia Oktarina; Matthew Greenblatt; Lionel Ivashkiv; Mathias Bostrom; Xu Yang

Poster No. 729

**Early Changes To The Growth Plate And Primary Spongiosa Secondary To Femoral Head Ischemia In A Piglet Model Of Legg-Calvé-Perthes Disease**

Alexandra R. Armstrong; Nicole R. Nelson; Ferenc Toth; Casey P. Johnson

Poster No. 730

**Alpha-1 Antitrypsin Deficiency Elevates Serum Biomarkers Of Bone Remodeling In Response To Injury**

Joana I. Almeida; Amelia Franchin; Neharika Bhadouria; Tori Kroon; Nilsson Holguin

Poster No. 731

**PTHrP/PTH1R Signaling In Bone Marrow Adipocytes Regulates Maternal Skeletal Adaptation During Lactation**

Wonsae Lee; Xiaoyu Xu; Kira Lu; Jessica Jojo; Yihan Li; LING QIN; X. Sherry Liu

Poster No. 732

**Developing A Small Animal Trauma Model For Osteonecrosis Of The Femoral Head**

Zeynep Bal; Nobuyuki Takakura

Poster No. 733

**Optimization Of Chondrocyte, Osteoblast And Osteocyte Isolation From Human Adult Osteochondral Tissue For Single-cell RNA Sequencing**

Innocent Ogunmwoyeni; Joseph Snuggs; Karan Shah; Diane Swift; Mark Wilkinson

Poster No. 734

**Prevalence Of Sarcopenia And Its Association With Different Factors In Elderly Women With Distal Radius Fractures**

Sang Yang Lee; Keikichi Kawasaki; Satoshi Okamoto; Yuichiro Okazaki; Yoshifumi Kudo

Poster No. 735



## LIST OF POSTERS

### **Mechanical Effects Of Advanced Glycation End Product (AGE) Accumulation In Human Cortical Bone**

Katelynn R. Gallagher; Olivia N. Reul; Andrew A. Tomaschke; Joseph M. Wallace

Poster No. 736

### **Dxa-based Finite Element Model Of Vertebrae Differentiates Patients With And Without Vertebral Fracture, Independent Of BMD**

Ram N. Yadav; Daniel Oravec; Josh Drost; Harika Ileni; Sudhaker D. Rao; Yener N. Yeni

Poster No. 737

### **Prednisolone Promotes Ros Production And Suppresses Osteogenesis**

Yosuke Susuki; Issei Shinohara; Masatoshi Murayama; Qi Gao; Alexa Pius; Mehmet Sertac Cekuc; Yasemin Sude Ergul; Mayu Morita; Aditya Chindhade; Chao Ma; Masakazu Toya; Simon Chow; Stuart Goodman

Poster No. 738

### **Metformin Improves Corticosteroid-induced Suppression Of Bone Differentiation By Downregulating Ros**

Issei Shinohara; Yosuke Susuki; Masatoshi Murayama; Qi Gao; Alexa Pius; Yasemin S. Ergul; Mehmet S. Cekuc; Mayu Morita; Chao Ma; Masakazu Toya; Simon K. Chow; Stuart B. Goodman

Poster No. 739

### **Fracture Risk Prediction For Safe Loading Of Knee Joints With Benign Bone Tumours: Patient-specific Finite Element Analysis**

Emily G. Cameron; Dan Borschneck; John Rudan; Heidi-Lynn Ploeg

Poster No. 740

### **Early Effects Of Ptoa On The Mouse Subchondral Bone: An In Vivo Longitudinal Study Using In Vivo Microct Imaging**

Enrico Dall'Ara; Sara Oliviero; Sebastian Taylor; Victor G. Canuas-Landero; Heba MS Ismail; Ilaria Bellantuono

Poster No. 741

### **Establishing A Standard For Pelvic Deformity In Adult Mice With Osteogenesis Imperfecta**

Jack E. Mulcrone; Erin Carter; Jonathan Chacko; Ketsia Seide; Cathleen Raggio



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-036 Bone - Growth, Development and Aging**

Poster No. 742

**Dexamethasone-induced Bone Toxicity In Developing Bone: A Single Cell Perspective**

Kelly Warmink; philip Lijnzaad; Tristan C.W. Vermaat; Lisa Jansen; Marloes C.C. van Gend; Aleksandra Balwierz; Nathalie Proost; Marieke van de Ven; Hans Merks; Thanasis Margaritis; Claudia Janda

Poster No. 743

**Factors Associated With Bone Health In Long Distance Runners: A Cross-sectional Study**

Ulrike H. Mitchell; Kelsey A. Clark; Savannah Nielsen; Patrick J. Owen

Poster No. 744

**Survival Of Motor Neuron Protein Deficiency Inhibits Endochondral Ossification Via Promoting Traf6-induced Ubiquitination Degradation Of Ybx1 In Spinal Muscular Atrophy**

Zijie Zhou; Xinbin Fan; Taiyang Xiang; Lei Sheng; Xiaozhong Zhou

Poster No. 745

**Role Of Mineralocorticoid Receptor Activation In Glucocorticoid-Induced In Vitro Osteogenic Differentiation**

Lucille Wespi; Martin J. Stoddart; Elena Della Bella

Poster No. 746

**Dynamics Of Postnatal Bone Development And Epiphyseal Fusion In Caprine Phalanges And Metacarpal Bones**

Christopher Panebianco; Maha Essaidi; Elijah Barnes; Ashley Williams; Karin Vancíková; Margot Labberté; Pieter Brama; Niamh Nowlan; Joel Boerckel

Poster No. 747

**Effect Of Intermittent Extracellular Low Ph Environment On Human Umbilical Vein Endothelial Cell Activity**

Ryota Nishida; Tomoaki Fukui; Keisuke Oe; Yohei Kumabe; Genta Fukumoto; Jonathan Jonathan; Hyuma Kondo; Yuya Yamamoto; Takahiro Niikura; Ryosuke Kuroda

Poster No. 748



## LIST OF POSTERS

---

**Role Of Nampt In Regulating The Senescence Of Bone Marrow Mesenchymal Stem Cells And Senile Osteoporosis**

Bo Tian

Poster No. 749

**Targeting Senescence As A Strategy To Enhance Bone Regeneration: A Systematic Review**

Mayu Morita; Simon Chow; Qi Gao; Issei Shinohara; Masatoshi Murayama; Yosuke Susuki; Stuart Goodman

Poster No. 750

**Estimating Skeletal Maturity By Segmented Linear Modeling Of Key AP Wrist Radiographic Parameters**

Kira L. Smith; Joshua T. Yuan; Ryan Furdock; Kallie J. Chen; Raymond Liu

Poster No. 751

**Osteocytic Von-Hippel Lindau Deficiency Sustains High Osteoanabolic Potential With Age**

Sarah V. Mendoza; Deepa K. Murugesu; Gabriela G. Loots; Damian C. Genetos; Clare E. Yellowley

Poster No. 752

**Bioelectronic Implant Accelerates Bone Healing: First In Vivo Evidence From A Paired-limb Ovine Study**

Thomas A.G. Hall; Sasza Chyntara Nabilla; Bruno M. Gil Rosa; Gordon Blunn; Frederic Cegla; Richard J. van Arkel



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-037      Bone - Injury and Healing**

Poster No. 753

**Comparison Of Fracture Healing According To Carriers During Administration Of Mesenchymal Stem Cells In A Rat Model Of Long Bone Fracture: Normal Saline Versus Hydrogel**

Myung-Seo Kim; Kang-Il Kim

Poster No. 754

**Deciphering The Role Of Sensory Nerves In Non-healing Calvarial Bone Defects**

Allison L. Horenberg; Carlos Villapudua; Mingxin Xu; Eric Zeng; Shaquielle Dias; Tanishk Sinha; Mary Archer; Aaron James; Warren Grayson

Poster No. 755

**Risk Assessment For Condylar Stress Fracture In Elite Racing Thoroughbreds using Standing Computed Tomography-based Virtual Mechanical Testing**

Nicola L. Brown; Soroush Irandoust; Elleana Thom; Chris Whitton; Corinne Henak; Peter Muir

Poster No. 756

**Withdrawn**

Poster No. 757

**Hoxa10 Maintains The Skeletal Stem Cell Pool And Proper Bone Healing Response**

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

Poster No. 758

**The Role Of Collagen Triple Helix Repeat Containing 1 (CTHRC1) In Bone Regeneration**

Caroline A. Taylor; Sarah G. McMahon; Kyle J. Berry; Rachel McCarley; Volkhard Lindner; Mimi C. Sammarco

Poster No. 759

**The Critical Role Of 14-3-3 Epsilon In Atsttrin-stimulated Diabetic Bone Fracture Healing**

Lida Moradi; Chuan-ju Liu

Poster No. 760



## LIST OF POSTERS

### **Trpc1 Cation Channel Regulates The Differentiating Potential Of Mesenchymal Stem Cells And Bone Homeostasis**

Shivmurat Yadav; Jyoti Yadav; Jeremy Houser; Marta Onopuik; Leo Tsiokas; Yan Chen; Mary Beth Humphrey

Poster No. 761

### **Immunomodulatory Effects Of Metformin In Prednisolone-induced Macrophage Responses In 3d Cultures**

Mehmet Sertac Cekuc; Yasemin Sude Ergul; Alexa Pius; Meagan Makarczyk; Issei Shinohara; Masatoshi Murayama; Yosuke Susuki; Mayu Morita; Simon Kwoon-Ho Chow; Hang Lin; Bruce Bunnell; Qi Gao; Stuart B. Goodman

Poster No. 762

### **Parathyroid Hormone (1-34) Does Not Affect Lepr+ Skeletal Stem Cells In A Mouse Model Of Implant Osseointegration Failure**

Jürgen Alphonsus; Vincentius J. Suhardi; Anastasia Oktarina; Andrew Thomson; Reinhard Windhager; Matthew Greenblatt; Lionel Ivashkiv; Mathias Bostrom; Xu Yang

Poster No. 763

### **Microfluidic-based Synthesis Of Amorphous Calcium Phosphate Nanoparticles Enables Precise Control Of Nanoparticle Characteristics And Enhance Osteogenesis**

Bei Liu; Hani Awad

Poster No. 764

### **A Novel Treatment Strategy For Nonunion Targeting Bone Senescence**

Takayuki Kitahara; Masato Ikuta; Hiromasa Hirai; Takuya Furuichi; Masayuki Bun; Seiji Okada; Takashi Kaito

Poster No. 765

### **Hdac3 Deficiency Limits Periosteal Reaction Associated With Western Diet Feeding In Female Mice**

Ismael Karkache; Elizabeth K. Vu; Anthony Pham; Jinsha Korothe; Elizabeth Bradley

Poster No. 766

### **Assessing The Reliability Of Virtual Mechanical Testing In Murine Tibiae Digital Twins**

Maham Tanveer; Galen M. Goldscheitter; Evan G. Buettmann; Henry J. Donahue; Hannah L. Dailey

Poster No. 767

### **Anemia Dysregulates The Systemic Inflammatory Response And Impedes Bone Healing After Injury**





## LIST OF POSTERS

Victoria R. Duke; Cynthia Alcazar; Natasha McKibben; Corinthia Brown; Zachary Working; Nick Willett; Karina Nakayama

Poster No. 768

**Fully Automated Workflow For Virtual Mechanical Testing Of Ovine Bone Fracture Healing Using Digital Twins**

Alireza Ariyanfar; Mehran Bahrami; Hannah Dailey

Poster No. 769

**Factors Driving Pain Behavior Recovery Following Fracture In Mice**

Molly E. Czachor; Dane RG Lind; Charles Lam; Kazuhito Morioka; Matthieu Huard; Jacob Matityahu; Ralph Marcucio; Allan Basbaum; Dustin Snapper; Jarret Weinrich; Chelsea S. Bahney

Poster No. 770

**Osseointegrated Cap To Reduce Bony Overgrowth, Heterotopic Ossification, And Stump Pain Following Amputation**

Dustin Williams; Richard Epperson; Grace Porter; Emily Porter; David Rothberg; Raymond Olsen; Aaron Olsen; Brooke Kawaguchi; Paul Pasquina; John Shero; Brad Isaacson

Poster No. 771

**Yap Regulates Post-fracture Periosteal Expansion Through Both Cell Intrinsic And Extrinsic Co-transcriptional Programs.**

Madhura Nijasure; Miriam Baitner; Gabrielle Tanner; Dakota Jones; Annemarie Lang; Brendan Tobin; Elizabeth Seidl; Yasaman Moharrer; Christopher Panebianco; Gregory Szeto; Nathaniel Dymont; Levi Wood; Joel Boerckel

Poster No. 772

**Cerclage Wire As An Affordable Plate Fixation Alternative In Murine Femoral Critical Sized Defect Models**

Kaitlyn Cimney; Kell Sprangel; Khady Diop; Jordin Marshall; Allison Smith; Adam Kling; Carmen Quatman; Angela Collins; Kevin Wolf; Ryan Brune; Benjamin Walter; Sara McBride-Gagy

Poster No. 773

**Race To The Surface - Local Fracture Conditions Affect Host Cell Attachment To Implants**

Sarah Romereim; Hailey Bennett; Matthew Smykowski; Xue Ma; Nicholas Bernthal; Joseph Wenke; Rachel Seymour; Joseph Hsu; Bailey Fearing

Poster No. 774

**Withdrawn**



## LIST OF POSTERS

Poster No. 775

**Piezo1 In Hypertrophic Chondrocytes Regulates Bone Development And Fracture Healing**

Miriam E. A. Tschaffon-MãfÂ¼ller; Astrid Schoppa; Laura J. Brylka; Franziska Eckl; Timur A. Yorgan; Melanie Haffner-Luntzer; Thorsten Schinke; Anita Ignatius

Poster No. 776

**Exploring The Relationship Between Frailty And Nonunion Fractures In Upper Extremity Injuries: Insights From The National Inpatient Sample**

Cyrus Luczkow; Victor Koltenyuk; Ethan Parisier; Audrey Huang; Omri Ayalon

Poster No. 777

**Investigation Of Fracture Progression Mechanisms In Fragility Fractures Of The Pelvis Using Finite Element Analysis**

Satoshi Nakasone; Takahiro Igei; Sakura Kuniyoshi; Mika Takaesu; Fumiyuki Washizaki; Kotaro Nishida

Poster No. 778

**Investigating The Impact Of Social Deprivation On Outcomes In Phalangeal Fracture Fixation Surgery**

Jacob D. Kodra; Austen Schweinert; Mackenzie O'Connell; Matthew Van Bortel; Alexander Graf; Jessica Hanley

Poster No. 779

**Bone Marrow Mononuclear Cells Transplantation Promotes Functional Bone Healing Via Gap Junction-mediated Cell-cell Interaction With Accelerated Angiogenesis And Osteogenesis**

Yoshihito Suda; Akihiko Taguchi; Tomoyuki Matsumoto; Yuka Okinaka; Shinya Hayashi; Masanori Tsubosaka; Tomoyuki Kamenaga; Yuichi Kuroda; Naoki Nakano; Yuma Onoi; Shotaro Tachibana; Kensuke Wada; Akira Saitoh; Takuma Maeda; Kohei Motono; Shotaro Araki

Poster No. 780

**Tuning And Validation Of A Virtual Mechanical Testing Pipeline For Condylar Stress Fracture Risk Assessment In Thoroughbred Racehorses**

Soroush Irandoust; Chris Whitton; Corinne Henak; Peter Muir



## LIST OF POSTERS

### Saturday, February 8, 2025

10:00 AM - 7:30 PM

Room #: North Hall A-C

#### **PS1-038      Bone - Mechanobiology**

Poster No. 781

##### **Mechano-immunomodulation Of Macrophages In The Context Of Early Bone Repair**

Stephane Petrousek; Gabriela Kronemberger; Gordon O'Brien; Sinead O'Rourke; Lianne Shanley; Aisling Dunne; Daniel Kelly; David A. Hoey

Poster No. 782

##### **Cumulative Locomotion Activity Does Not Determine Why Mice Demonstrate A Bimodal Response To An Osteogenic Voluntary Wheel Running Regimen**

Brandon Ausk; Phillipe Huber; Steven Bain; Ted Gross

Poster No. 783

##### **Mesenchymal-derived Bone Cells Regulate Osteoclastogenesis Via An Extracellular Vesicle-mediated Mechanism That Is Dependent On The Stage Of Mesenchymal Lineage Commitment And The Mechanical Environment**

Mimma Maggio; Carolina Martins; Rawan Almasri; Stéphane Petrousek; Mathieu Y. Y. Brunet; Tara Ní Néill; Conor T. Buckley; Lorraine O'Driscoll; David A. Hoey

Poster No. 784

##### **Finite Element Workflow To Predict Subject-specific Local Biomechanics In Healing Femoral Bone Defects**

Farhan Muhib; Kylie E. Williams; Steven A. LaBelle; Angela S P Lin; Robert E. Guldberg; Jeffrey A. Weiss

Poster No. 785

##### **A Bioengineered Model To Elucidate Mechanotransduction Mechanisms During Bone Formation**

Sofia Vignolo; Avathamsa Athirasala; Jacob P. Fredrikson; Luiz E. Bertassoni

Poster No. 786

##### **Genetics, Sex, And Body Weight Influence The Magnitude Of Response To Disuse In Mice**

Michael Friedman; Jessica Williamson; Yaaminata Koroma; Zofia Bosowska; Saikat Bandyopadhyay; John McKean; Jennifer Coulombe; Charles Farber; Henry Donahue



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-039 Bone - Structure, Function and Mechanics**

Poster No. 787

**Mechanobiology Of Drifting Osteons Remains Enigmatic In View Of Their Low Prevalence, Inconsistent Regional Variation, And Lack Of Preferential Migration Toward The Marrow Cavity**

John G. Skedros; Kendra E. Keenan; Kevin B. Curtis; Brett W. Richards; John T. Cronin

Poster No. 788

**Chemical Evidence Of A Bond Between The Organic Matrix And Mineral In Human Bone: Insights From X-ray Photoelectron Spectroscopy**

Ulrich Hansen; Dahlia Eldosoky; Richard Abel

Poster No. 789

**Type 1, But Not Type 2, Diabetes Reduces Resistance To Damage Accumulation In Femoral Cortical Bone In Older Adults**

Shannon R. Emerzian; Marcela Granados; Jarred Chow; Daniel J. Brooks; I-Hsien Wu; Surya Jangolla; Marc Gregory Yu; Hetal S. Shah; George L. King; Fjola Johannesdottir; Elaine Yu; Mary L. Bouxsein

Poster No. 790

**In Vivo Mechanical Loading Leads To Tissue Adaptation In Vertebrae Which Diminish In The Subsequently Resting Period**

Cosima Erhard; Tobias Thiele; Katharina Schmidt-Bleek; Melih Celik; Georg Duda

Poster No. 791

**The Impact Of Retrograde Nail Length On Proximal Femur Fracture: A Finite Element Study With Validation**

Gregory R. Roytman; Sarah E. Rizzo; Jay Moran; Brad J. Yoo; Steven M. Tommasini; Daniel H. Wiznia; Brianna R. Fram

Poster No. 792

**Effects High Phosphate Diet On Characteristics Of Mouse Femur And Mandible**

FARAH A. AL-OMARI; Kristin Nguyen; Minji Kim; Andrew J. Cheline; Peter Tsatalis; Yasmin Samanian; Olivia Jackson; Daniel A. Branch; Hannah F. Sanders; Young Jang; Beth Lee; Kedryn K. Baskin; Do-Gyoon Kim



## LIST OF POSTERS

Poster No. 793

**Biomarkers For Preoperative Assessment Of Bone Quality: A Prospective Investigation Of Dermal Ultrasound Parameters And Advance Glycation Endproducts In Lumbar Fusion Patients.**

Erika A. Chiapparelli; Ali E. Guven; Quinton Wright; Paul Kohli; Ranqing Lan; Krizia Amoroso; Gisberto Evangelisti; Jan Hambrecht; Bruno Verna; Koki Tsuchiya; Jiaqi Zhu; Jennifer Shue; Eve Donnelly; Andrew A. Sama; Federico P. Girardi; Frank P. Cammisa; Alexander P. Hughes

Poster No. 794

**Estrogen Deficiency Combined With Hypertension Weakens Bone In Adult Female Mice**

Elizabeth M. Hennen; Priya Mathiy; Sasidhar Uppuganti; Santosh Thapa; Elizabeth Rendina-Ruedy; David G. Harrison; Jeffrey Nyman

Poster No. 795

**Fibers Of Collagens -I And -II Entangle At The Osteochondral Cement Line**

Khizar Hayat; Aimee C. Colbath; Michael Doube

Poster No. 796

**Investigating The Role Of Degradation Resistant Hypoxia Inducible Factors On Skeletal Phenotype**

Adriana P. Pantoja; Clare Yellowley; Damian Genetos; Gabriela Loots; Sarah Mendoza; Deepa Murugesh

Poster No. 797

**Long Bone Aging In Hif-p4h-2 Hypomorph Mouse Model**

Tianqi Zhang; Shuvashis Das Gupta; Atte Tapiola; Lassi Vuononvirta; Mikko Karpale; Eeva Nevanranta; Sami Kauppinen; Peppi Koivunen; Mikko Finnilä

Poster No. 798

**Do Pedicle Biopsies Reflect Iliac Crest Bone Microarchitecture, Extracellular Matrix Quality, And Lumbar BMD? A Prospective Study In 47 Patients Undergoing Lumbar Fusion Surgery**

Paul C. Köhli; Jan Hambrecht; Erika Chiapparelli; Koki Tsuchiya; Ali E. Guven; Lukas Schönnagel; Gisberto Evangelisti; Jennifer Shue; Marco D. Burkhard; Eve Donnelly; Andrew Sama; Federico Girardi; Frank Cammisa; Alexander Hughes



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-040      Bone - Treatment and Therapeutics**

Poster No. 799

**Optimal Dosing Of Wnt Surrogate Stimulates Bone Formation But Not Resorption In Aged Mice**

Syeda N. Lamia; Aaron Ly; Chenming Wei; Stephane Angers; Matthew J. Silva

Poster No. 800

**Bone-Derived Matrix Vesicles Inhibit Osteoclastogenesis: A New Role Beyond Mineralisation**

Mimma Maggio; Mathieu Y. Brunet; Rawan Almasri; Cansu Gorgun; Lorraine O'Driscoll; David Hoey

Poster No. 801

**Metformin Enhances Osteodifferentiation In Msc-encapsulated 3d Culturesby Decreasing Oxidative Stress In A Corticosteroid-induced Environment**

Mehmet Sertac Cekuc; Yasemin Sude Ergul; Alexa Pius; Meagan Makarczyk; Issei Shinohara; Masatoshi Murayama; Yosuke Susuki; Mayu Morita; Simon Kwoon-Ho Chow; Hang Lin; Bruce Bunnell; Qi Gao; Stuart B. Goodman

Poster No. 802

**Co-cultures Of MSCs, Macrophages, And Lymphocytes At An Optimal Ratio Improves Bone Matrix Formation By Altering Immune Cell Polarization**

Masatoshi Murayama; Issei Shinohara; Yosuke Susuki; Qi Gao; Alexa Pius; Mehmet Sertac Cekuc; Yasemin Sude Ergul; Mayu Morita; Ma Chao; Simon Chow; Stuart Goodman

Poster No. 803

**Combination Ex Vivo Regional Gene Therapy With Bone Morphogenetic Protein-2 And Sonic Hedgehog For Critical Size Bone Defects**

Cory K. Mayfield; Matthew C. Gallo; Jacob R. Ball; Fergui Hernandez; Tara Shelby; Elizabeth Lechtholz-Zey; Mina Ayad; Julius Reynolds; Aura Elias; Jennifer Bell; Osamu Sugiyama; Jay R. Lieberman

Poster No. 804

**Machine Learning Prediction Of Atypical Femur Fractures In Bisphosphonate-Treated Patients**

Priya Agarwal; Michelle Dai; Julio Ojea Quintana; Andre Van de Ven; Tarun Mattikalli; Steven Graham; Yuanyuan Chen; Christiana Cottrell; Ani Ural; Andrew Park; Bruce J. Kneeland; Gregory Chang; Chamith S. Rajapakse



## LIST OF POSTERS

Poster No. 805

**Comparative Study Of Autologous Bone And Bone Morphogenetic Protein 2 In Bone Regeneration Using New Masquelet Technique Rabbit Model**

Yuya Yamamoto; Tomoaki Fukui; Keisuke Oe; Yohei Kumabe; Kenichi Sawauchi; Ryo Yoshikawa; Kyohei Takase; Ryota Nishida; Hyuma Kondo; Takahiro Niikura; Ryosuke Kuroda

Poster No. 806

**Teriparatide May Be Effective In The Treatment Of Stress Fractures At Medium-term Follow-up**

Ting Cong; William Friedman; Nicholas Haddad; Mahmoud Yousef; Heather Berman; Scott Rodeo; Linda Russell; Emily Stein; Alana Serota; Marci Goolsby; Jeri Nieves; Joseph Lane

Poster No. 807

**Withdrawn**

Poster No. 808

**Withdrawn**

Poster No. 809

**Development Of Novel Sclerostin-targeting Small Molecules For Osteoporosis Treatment**

Lu Feng; Zhengmeng Yang; Nan Hou; Micky Daniel Tortorella

Poster No. 810

**Deflazacort And Sclerostin Antibody Synergistically Improve Bone Microarchitecture In Dystrophin/utrophin Double Knockout Mice**

Xueqin Gao; Joseph J. Ruzbarsky; Matthieu Huard; Bing Wang; Johnny Huard

Poster No. 811

**Syk Inhibitor Suppresses Pathological Bone Resorption After Discontinuation Of Anti Rankl Antibody**

Hotaka Ishizu; Tomohiro Shimizu; Tomoka Hasegawa; Norio Amizuka; Norimasa Iwasaki

Poster No. 812

**Viable Bone Debris From Minimally Invasive Osteotomy Procedures: Trash Or Treasure?**

Kirin Cromer; Kevin Liebmann; Noah Gabor; Steven D. Steinlauf; Tom M. Best; Dimitrios Kouroupis

Poster No. 813

**Assessing The Rate And Risk Factors Of Compartment Syndrome In Pediatric Tibial Tubercle Fractures**

Alex Youn; Abbott Gifford; Ishaan Swarup

Poster No. 814



## LIST OF POSTERS

---

**Cell-secreted Extracellular Matrix Improves Expression Of Osteogenic Markers In iPSC-MSC Spheroids**

David Hiram Ramos Rodriguez; Shierly W. Fok Lau; Connor J. Dorais; Kent Leach

Poster No. 815

**Systemic Administration Of Annexin A1 Protected From Bone Loss In Postmenopausal Osteoporosis Model Via Regulating Osteoclast And Osteocytes Activities**

Yoshio Nishida; Hend Alhasan; M Alaa Terkawi; Taiki Tokuhiro; Tomohiro Shimizu; Tsutomu Endo; Daisuke Takahashi; Norimasa Iwasaki





## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-041      Foot and Ankle - Diagnostics**

Poster No. 816

**The Arch Height Index- A Novel Radiographic Measure Of Arch Collapse**

Daniel Latt

Poster No. 817

**A Wireless Sensor Platform For Distal Extremity Movement Evaluation**

Mykola Mazur; George P. Kontoudis; Anthony Petrella

Poster No. 818

**Critical Point Analysis To Evaluate Intersegmental Foot Motion During Gait**

Jahyung Kim; Joonhee Kim; Min Gyu Kyung; Dong Yeon Lee



## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-042      Foot and Ankle - Growth, Development and Aging**

Poster No. 819

**Osteoporosis Is Not Associated With Increased Likelihood Of Reoperation Or Postoperative Periprosthetic Fracture Through Three Years After Primary Total Ankle Arthroplasty: A Retrospective Cohort Study**

Anthony Baumann; Alexandra Krez; Robert Trager; Omkar Anaspure; Kempland Walley; Mihir Surapaneni; Samuel Adams; Albert Anastasio

Poster No. 820

**Analysis Of Serial Foot Radiographs To Determine Foot Height Multipliers**

Victoria J. Nedder; Ansh P. Shah; Kallie J. Chen; John E. Herzenberg; Raymond W. Liu

Poster No. 821

**Comparison Of Clinical And Demographic Factors In Patients With Congenital Talipes Equinovarus With And Without Recurrence Following Ponseti Treatment**

Leila Mehraban Alvandi; Jordan Jordan Giordano; Edina Gjonbalaj; Alexandra Hoffman; Alexa Karkenny; Melinda Sharkey; Jacob Schulz



## LIST OF POSTERS

### Saturday, February 8, 2025

10:00 AM - 7:30 PM

Room #: North Hall A-C

#### **PS1-043      Foot and Ankle - Injury and Healing**

Poster No. 822

#### **Associations Between Patient Demographics, Injury Severity, And Treatment For Patients With Diabetic Foot Ulcers**

Mubinah Khaleel; Ashwin Garlapaty; Sam Hawkins; James Cook; Kyle Schweser; Kylee Rucinski

Poster No. 823

#### **Younger Age Correlates With Increased Gutter Impingement Rates After Total Ankle Arthroplasty**

Kevin Wu; Albert T. Anastasio; Kishen Mitra; Grayson M. Talaski; Alexandra N. Krez; James K. DeOrio; Mark E. Easley; James A. Nunley; Samuel B. Adams

Poster No. 824

#### **Correlation Assessment Between PTOA Severity And Tibiotalar Morphology In Pilon Fracture Patients**

Jordan S. Langford; Andrew C. Peterson; Donald D. Anderson; Julie Agel; Kleweno P. Conorr; Justin Haller; Amy Lenz

Poster No. 825

#### **Revision Total Ankle Arthroplasty Outcomes Using The Inbone II System**

Albert T. Anastasio; Kevin A. Wu; Conor N. O'Neill; Grayson M. Talaski; Billy I. Kim; Bruno Valan; Alexandra N. Krez; Emily Luo; Samuel B. Adams; James A. Nunley; Mark E. Easley; James K. DeOrio

Poster No. 826

#### **A Narrative Review Of The Classification Of Posterior Pilon Variant Ankle Fractures**

Eric M. Lassiter; Jiayong Liu; Osama Elattar

Poster No. 827

#### **The Effect Of Osteochondral Fragment Loss On Maximal Stress In Posterior Malleolus Fractures: A Finite Element Study**

Gregory R. Roytman; Sarah E. Rizzo; Anshu Jonnalagadda; Steven M. Tommasini; Daniel H. Wiznia; Brad J. Yoo



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-044      Foot and Ankle - Structure, Function and Mechanics**

Poster No. 828

**Validation Of Patient-specific Flatfoot Models On Finite Element Analysis**

Yumiko Kobayashi; Kazuya Ikoma; Masahiro Maki; Kan Imai; Masamitsu Kido; Yasutaka Sotozono; Kenji Takahashi

Poster No. 829

**A Multiple Joint Morphometric Analysis Of Female Patients With Progressive Collapsing Foot Deformity Compared To Asymptomatic Controls.**

Takuma Miyamoto; Rich Lisonbee; Cassidy Knutson; Hiroaki Kurokawa; Akira Taniguchi; Yasuhito Tanaka; Amy Lenz

Poster No. 830

**Wearing An Immobilizing Boot After Achilles Tendon Rupture Does Not Reduce Tendon Loading In All Patients**

Todd J. Hullfish; Michelle P. Kwon; Devyn Russo; Lorraine AT Boakye; Casey J. Humbyrd; Josh R. Baxter

Poster No. 831

**The Effect Of Different Surgical Corrections Of Fixed Flatfoot On Its Unloaded And Loadedbehavior**

Luigi Piarulli; Sorin Siegler

Poster No. 832

**Quantitative Analysis Of The Function Of The External Muscles Of The Foot And Ankle Using A Subject-specific Image -based, Dynamic Model**

Luigi Piarulli; Rostam Kojouri; Sorin Siegler

Poster No. 833

**Quantification Of Articular Joint Mechanics Of The Hindfoot During Dynamic Motion**

Barbara Postolka; Bryce A. Killen; Hannelore Boey; Jos Vander Sloten; Ilse Jonkers

Poster No. 834

**Load Sharing Of Each Fiber Bundle Of The Medial Ankle Ligament During Ankle Motion Loading -A Biomechanical Study-**



## LIST OF POSTERS

---

Yuta Mori; Yasutaka Murahashi; Katsunori Takahashi; Kazushi Horita; Tomoaki Kamiya; Kota Watanabe;  
Atsushi Teramoto

Poster No. 835

**Mapping The Planus Through Cavus Foot Type Spectrum With Statistical Shape Modeling And  
Weightbearing CT**

Elana R. Lapins; Charles Saltzman; Shireen Elhabian; Amy Lenz



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-045      Foot and Ankle - Surgical and Non-Surgical Interventions**

Poster No. 836

**Developing A Low-cost Functional Orthotic To Improve Ankle Biomechanics In Haemarthropathy For A Global South Population**

Harriet G. Talbott; Steve Hayes

Poster No. 837

**Successful Radiographic And Clinical Outcomes Of Headed Screws In Distal Tibia Fracture Repair**

Jillian Mohn; Madilyn Riegel; Paul DeFrino; Shane Hollawell; Hallie Murray

Poster No. 838

**Excision Of Talocalcaneal Coalition Resection With Three-Dimensional Navigation**

Jacob Schaefer; Emil Varas; Quinn Johnson; Anthony Stans; William Shaughnessy; Annalise Larson; Todd Milbrandt; Emmanouil Grigoriou

Poster No. 839

**Comparison Of Clinical Outcomes In Acute Versus Staged Open Reduction And Internal Fixation For AO/OTA Type 43C Tibial Pilon Fractures**

Austin C. Stewart; Jiayong Liu

Poster No. 840

**Revised Modified Gift Box Achilles Repair Increases Failure Strength And Gapping Resistance**

Ric Smith; William Gamble; Kenzo Cotton; Henry Samiya; Sydney Morris; Mark Carl Miller; Patrick Smolinski; MacCalus Hogan

Poster No. 841

**Clinical And Radiographic Outcomes Of Headless Screws In Traumatic And Reconstructive Hindfoot Applications**

Jillian Mohn; Madilyn Riegel; Blake Moore; Paul DeFrino; Shane Hollawell; Michael Gentile; Hallie Murray

Poster No. 842

**Assessing The Longitudinal Trends And Risk Factors Of Operative Versus Non-operative Management Of Achilles Tendon Ruptures: A National Database Cohort Study**



## LIST OF POSTERS

---

Alex Youn; Kian Niknam; Aboubacar Wague; Sankalp Sharma; Brian Feeley; Daniel Thuillier

Poster No. 842A

**Is Tibiotalocalcaneal Fusion A Reliable Alternative To Orif In Acute Traumatic Ankle Fractures In Geriatric Patients?**

Alexandra Stump; Sean Renfree; Mohammed Abbas; David Haddad; Amber Gordon; Spencer Knight; Travis Hughes

Poster No. 843

**Mid- To Long-term Outcomes Of Non-Stemmed Primary Total Ankle Replacement For Ankle Osteoarthritis: A Systematic Review With A Minimum 5-year Follow-up**

Thelma R. Jimenez Mosquea; Yasmeen Saeed; Hugo A. Ubillus; Raymond J. Walls

Poster No. 844

**Design Of Nitinol Staples And Strain Concentration: A Finite Element Study**

Samuel Fang

Poster No. 845

**A Meta-analysis Of The Clinical Outcomes Of Different Hallux Valgus Surgical Correction Techniques**

Michael Uematsu; Thomas Cho; Jiayong Liu

Poster No. 846

**Tibiotalocalcaneal Nailing As A Treatment For Ankle Fractures In The Elderly Population: A Systematic Review**

Christian Harter; Thomas Cho; Jiayong Liu

Poster No. 847

**Increased Relative Risk In Diabetic Patients For Postoperative Complications In Ankle Arthroplasty**

Megna Panchbhavi



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-046      Tendon and Ligament - Diseases and Disorders**

Poster No. 848

**Growth Hormone Contributes To Heterotopic Ossification In Achilles Tendon**

Huanhuan Liu; Siqi Ren; Abhijit Sukul; Shouan Zhu

Poster No. 849

**Bonair: An Ai-dirven Histological Validation Of Human Achilles Tendinopathy Provides A Roadmap To Unravel Pathogenesis**

Guillaume M. Planckaert; Arne Burssens; Flore Stappers; Irem Kaya; Malaïka Van der Linden; Amanda Gonçalves; Benjamin Pavie; Amber Vanhaecke; Jo Van Dorpe; Jan Victor; Jess Snedeker; Katrien De Bock; Fiona Bonar; Jill Cook; Dirk Elewaut; Eric Gracey

Poster No. 850

**Impact Of Sensory Nerve Disruption On Achilles Tendon Degeneration**

Manyu Zhu; Xin Xing; Zhao Li; Qizhi Qin; Mingxin Xu; Stanley Chun Ming Wu; Mary Archer; Ziyi Wang; Masnsen Cherief; Sowmya Ramesh; Neelima Thottappillil; Aaron James

Poster No. 851

**Ciprofloxacin Disrupts Murine Tendon Structure And Function With Transcriptomic Alterations That Mimic Human Tendinopathic Phenotype And Implicate Nerve Axis Activation**

Nicole A. Chittim; Amro Hussien; Nicolo Dubacher; Gabor Matyas; Jess Snedeker

Poster No. 852

**Cellular Landscape Of Connective Tissue Failure To Heal - Biomarkers And Therapies**

Alison Bode; Penn Sagedahl; Chelsea Wu; Claire C. Desrochers; Anne Gingery; Ken Nishimura; Sandra Passe; Megan M. Weivoda

Poster No. 853

**Marfan Syndrom Affects The Achilles Tendon In Mice - Pilot Study**

Manuela Thierbach; Elizabeth Zimmermann; Bettina Willie; Britt Wildemann

Poster No. 854

**Does Obesity Increase Risk For Achilles Tendon Rupture?**

Chad Elliott; Alvin Ouseph; Alexander Abraham; Jarrod Martinez; Jerry S. Grimes





## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-047      Tendon and Ligament - Growth, Development and Aging**

Poster No. 855

**Patellar Tendon Biomechanical And Morphological Properties In Young And Older Women**

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

Poster No. 856

**Matrix Maturation Regulates Transcriptional Response To Tensile Strain In Engineered Human ACL**

Kenneth T. Tam

Poster No. 857

**The Anterior Cruciate Ligament In Pre-pubescent Pigs Has Greater Collagen Gene Expression And Estrogen Receptor Protein Expression Than In Post-pubescent Pigs**

Jacob D. Thompson; Matthew B. Fisher

Poster No. 858

**Inhibition Of TRPV4 And FAK In Ligament Fibroblasts Differentially Disrupt Hierarchical Collagen Formation**

Tristan Strayer; Jenny Puetzer



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-048      Tendon and Ligament - Injury and Healing**

Poster No. 859

**Early Postoperative Mobilization Improves Structural And Mechanical Properties Of Healing Enthesis In Onto-surface Repair Procedure**

Takuma Naka; Ken Kumagai; Kimi Ishikawa; Youhei Kusaba; Yusuke Inoue; Kiyotaka Nagashima; Daiki Watanabe; Yutaka Inaba

Poster No. 860

**Effects Of Interferon Blockade On Bone-to-tendon Healing In A Murine Model Of Anterior Cruciate Ligament Reconstruction Surgery**

Wataru Morita; Yuki Suzuki; Camila Carballo; Scott Rodeo; Kyung-Hyun Park-Min; Lionel Ivashkiv

Poster No. 861

**Single Cell RNA Sequencing Meta-Analysis Of Mouse Tendon Cells Reveals Increased Fibroblasts After Injury**

Sarah E. Dilorio; Bill Young; John M. Lu; Derrick Wan; Michael Januszyk; Michelle Griffin; Michael T. Longaker

Poster No. 862

**The Effects Of Fibroblast Growth Factor-2 (fgf-2) On Achilles Tendon Injury**

Yuki Fujikawa; Yoshiyuki Senga; Akinobu Nishimura; Masahiro Hasegawa

Poster No. 863

**The Metabolic Landscape In Rotator Cuff Tear Reveals Tissue-region-specific Signatures**

Xueying Zhang; Jiebo Chen; Jinzhong Zhao

Poster No. 864

**Increased Mechanical Stress On The Spontaneous Healing Process Of The Anterior Cruciate Ligament Does Not Cause Adverse Events In Mice Model**

Riku Saito; Kazuki Nakayama; Yuna Usami; Saaya Enomoto; Koyo Nogi; Takanori Kokubun

Poster No. 865

**Optimal Scaffold Selection For Adsc-derived Tenocyte Treatment In Tendinopathy Animal Model**

Hong Seok Kim; Sunhyung Lee; Jin Woo Nam; Jung-Wee Park; Jae Youn Yoon; Jeong Joon Yoo



## LIST OF POSTERS

Poster No. 866

**Role Of Autophagy On Tenocyte From Achilles Tendon**

Koki Yamazaki; Yoshiyuki Senga; Akinobu Nishimura; Yuki Fujikawa; Masahiro Hasegawa

Poster No. 867

**Do Protein Biomarkers From Tissues Recovered From Anterior Cruciate Ligament Reconstruction Correlate To Patient Reported Outcomes?**

Kelsey Atteberry; Luke Annin; Maria Hinkamp; Kris Lin; Richard Ma; James Cook; Aaron Stoker

Poster No. 868

**Effect On Concurrent Meniscal And Chondral Injury On The Secretome Of Joint Tissues After Anterior Cruciate Ligament Rupture**

Kris Lin; Luke Annin; Kelsey Atteberry; Maria Hinkamp; Richard Ma; James Cook; Aaron Stoker

Poster No. 869

**Mri Evaluation After Achilles Tendon Rupture In Athletes By Uchiyama Surgical Repair Technique**

Hideaki Fukuda

Poster No. 870

**Mechanical Tension Temporally Modulates Tendon Angiogenesis Through Vegf And Extracellular Vimentin**

Maja Wolleb; Patrick Jaeger; Alina Dintheer; Maja Bollhalder; Greta Moschini; Barbara Niederoest; Stefania Wunderli; Amro Hussien; Asma Mechakra; Katrien De Bock; Jess Snedeker

Poster No. 871

**Quantifying Patellar Tendon Microstructure Using Diffusion Tensor Imaging (DTI) After Bone-patellar Tendon-bone (BPTB) Autograft Harvest For Anterior Cruciate Ligament Reconstruction (ACLR)**

Naoaki Ito; Elizabeth A. Schmida; Daniel E. O'Brien; Diego Hernando; Kenneth S. Lee; Bryan C. Heiderscheit; Samuel A. Hurley

Poster No. 872

**Relaxin-2 Reduces Cartilage Thickness And Increases Collagen Disorganization In Female Rat**

Li Yue; Peter Ko; Lara Swords; Brett D. Owens

Poster No. 873

**Genetic Knockout Of Fatty-acid Binding Protein 4 Protected Tendon From Collagenase-induced Tendon Injury**

Pauline Po Yee Lui; Zebin Ma; Yuk Wa Lee



## LIST OF POSTERS

---

Poster No. 874

**Prf Promotes Lox Expression And Collagen Cross-linking Via TgfβR/smad3 Signaling To Promote Achilles Tendon Healing**

Yoshiyuki Senga; Akinobu Nishimura; Daisuke Katoh; Yusuke Higuchi; Yuki Fujikawa; KOKI YAMAZAKI; Masahiro Hasegawa

Poster No. 875

**Regeneration Of Quadriceps Tendon Elasticity After Harvesting For Acl Reconstruction**

Mario Pasurka; Joshua Kubach; Marcel Betsch

Poster No. 876

**Efficacy And Safety Of Hyperbaric Oxygen Therapy In Ligament And Tendon Injuries: A Systematic Review**

Shrinit J. Babel; Enrico Camporesi

Poster No. 877

**Injury Size Affects The Timing And Mechanism Of Microdamage Clearance In Tendons**

Anthony N. Aggouras; Jeroen Eyckmans; Brianne K. Connizzo

Poster No. 878

**Regulation Of Immune Signaling In MRL/MpJ Local Cell-Mediated Microdamage Repair**

Anthony N. Aggouras; Jeroen Eyckmans; Brianne K. Connizzo



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-049      Tendon and Ligament - Structure, Function and Mechanics**

Poster No. 879

**Cyclic Buckling Causes Macro-, Micro-, And Molecular-scale Damage In Both Positional And Energy Storing Tendons**

Austin MacDonald; Samuel Veres

Poster No. 880

**Quantitative Magnetic Resonance Imaging Holds Potential For Assessing The Human Ligament'S Composition And Function: An Ex Vivo Cross-sectional Study**

Amir Esrafilian; Olli Nykänen; Aapo Ristaniemi; Mikko Finnila; Heikki Kröger; Rami Korhonen; Mikko J. Nissi

Poster No. 881

**Scleraxis-Targeted Collagen XII Knockout Alters Mouse Achilles Tendon Structure, Function And Gene Expression During Postnatal Development**

Michael S. DiStefano; Srish S. Chenna; Lou J. Soslowsky

Poster No. 882

**Anterior Cruciate Ligament In The Osteoarthritic Human Knee: Alterations In Biochemical Composition And Viscoelastic Properties**

Aapo Ristaniemi; Tommi Paakkonen; Mikko A. J. Finnila; Heikki Kröger; Rami K. Korhonen

Poster No. 883

**Cross-system Agreement Of Relative Achilles Loading Levels In Dynamic Tasks**

John F. Drazan; Melanie Napierala; Joseph Duszak; Matthew Manduca; Jack Felipe; Stephanie G. Cone

Poster No. 884

**Mouse Tendon Mechanical Properties Vary Across Eight Inbred Strains**

Nicole Migotsky; Breanna Campbell; Kaitlyn Frey; Allison Risha; Moaid Shaik; Matthew Silva; Megan Killian; Adam Abraham

Poster No. 885

**Presence Of Intratendinous Neovascularization Or Calcifications Does Not Change Tendon Mechanical Properties**

As of 2.5.2025



## LIST OF POSTERS

---

Andy K. Smith; Karin M Silbernagel

Poster No. 886

**Glycosaminoglycan Content Decreases With Age In The Mouse Achilles Tendon But Does Not Alter Mechanical Properties**

Jonathon Blank; Jeremy Eekhoff; Lou Soslowsky

Poster No. 887

**Comparative Analysis Of Axial And Torsional Load Effects On Anterior Cruciate Ligament Integrity In Adolescent Porcine Models**

Nicole Chang; Nirav Mungalpara; Ilakiya Devi; Jason Koh; Mark Hutchinson; Farid Amirouche

Poster No. 888

**Understanding The Effects Of Mineralization And Structure On The Mechanical Properties Of Tendon-bone Insertion Using Mesoscale Computational Modeling**

Zhaoxu Meng; Zhangke Yang; Daniel Gordon; Yitong Chen; Hui Li; Yongren Wu

Poster No. 889

**Simulated Estrous Cycle Better Maintains ECM Homeostasis Than Sustained Hormone Delivery**

Allison M. Sander; Brianne K. Connizzo

Poster No. 890

**In Situ Strain Behavior Of The Supraspinatus Tendon Across Motion And Load Conditions**

Aaron Hellem; Jack Liffbrig; Allison Rao; Matthew MacEwen; Victor Barocas; Paula Ludewig; Arin Ellingson

Poster No. 891

**Achilles Subtendon Morphology Identified Via Isolated Muscle Stimulations Is Sensitive To Ankle Angle**

Kathryn S. Strand; Todd J. Hullfish; Maggie M. Wagner; Josh Baxter



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-050      Tendon and Ligament - Treatment and Therapeutics**

Poster No. 892

**Landmarks To Guide Femoral Attachment Selection In Lateral Patellofemoral Ligament Reconstruction: An In Vivo Assessment Of Isometry.**

Miriam Boot; Sebastiaan van de Groes; Esther Tanck; Dennis Janssen

Poster No. 893

**Adult Stem Cell Therapy For Equine Tendon/ligament Lesions: A Meta-analysis**

Mandi J. Lopez; Takashi Taguchi; Kiran Fida; Rita Aoun

Poster No. 894

**Effect Of Extracellular Vesicles From The Coculture Medium Of Anterior Cruciate Ligament Cells And Bone Marrow Cells On Hamstring Tenocyte Cell Activity And Apoptosis**

Cheng-Chang Lu; Hon lok Lo; Shun Cheng Wu; Lih-Ru Fang; Mei-Ling Ho

Poster No. 895

**Regulation Of Macrophage Polarization With A Self-assembling Peptide Hydrogel And Bone Marrow Aspirate Concentrate After Anterior Cruciate Ligament Reconstruction In A Mouse Model.**

Keitaro Fujino; Yoshiaki Hirano; Natsuki Yamamoto; Yukiko Yoshimura; Koshiro Shimbo; Atsushi Yokota; Shuhei Otsuki

Poster No. 896

**Withdrawn**

Poster No. 897

**Development Of Thermosensitive Nanoparticles For Joint Injury Repair**

Timothy P. Mahon; Mary Pat Reiter; Joseph W. Freeman

Poster No. 898

**Stability Study Of A Novel Topical Metformin Lotion For Tendon Injury Treatment**

Jianying Zhang; Erica Taylor; Grant Snyder; Satyajji Bhargava; Ellie Copeland; MaCalus Hogan; James H-C. Wang

Poster No. 899



## LIST OF POSTERS

---

### Withdrawn

Poster No. 900

**Evaluation Of The Role Of Activated Endothelial Cells In Tendon Healing: In Vivo Study In A Murine Patellar Tendinopathy Model**

Daniel M. Markowitz; Samuel J. Green; Krishna Pedaprolu; Matthew Covello; Sidharth Ranga; Cristina Baron; Diane Stonestreet; Camila B. Carballo; Claire D. Eliasberg; Nelly Andarawis-Puri; Scott A. Rodeo

Poster No. 901

**Transcriptome-guided Hydrogel Design Of A Stem Cell Niche For Enhanced Tendon Regeneration**

Wanqi Zhang; Ying Rao; Shing Hei Wong; Yuanhao ZHANG; Dai Fei Elmer Ker; Qin Cara Cao; Rocky S. Tuan; Dan Michelle Wang





## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-051      Knee - Diagnostics**

Poster No. 902

**Measurement Of Anteriorization Following Tibial Tubercle Osteotomy Can Be Performed Accurately On Lateral Knee Radiographs**

Nathan Varady; Nicolas Pascual-Leone; Ava Neijna; Andreas Gomoll; Sabrina M. Strickland

Poster No. 903

**Tipe2 Gene Transduce To Attenuate The Histopathology Of OA Through Reducing Senescent Cells In DMM Mouse Model**

Ping Guo; Xueqin Gao; Matthieu Huard; Aiping Lu; Johnny Huard

Poster No. 904

**Arthroscopic Fiber Optic Visible-NIR Spectral Data Collection In An Equine Stifle Joint**

Amanda Spurri; William Querido; Mohammed Shahriar Arefin; Chetan Patil; Marina Santos; Thomas P. Schaer; Nancy Pleshko

Poster No. 905

**Patella-posterior Turning Point Of The Distal Femur Distance Is A Potential Indicator for Diagnosing Patella Alta In Recurrent Patellar Dislocation Population**

Jiebo Chen; Xueying Zhang; Jingzhong Zhao

Poster No. 906

**Curvature Analysis Of The Distal Femur As A Tool To Classify Trochlear Dysplasia**

Johannes Sieberer; Nancy Park; Armita Manafzadeh; Steven Tommasini; Daniel Wiznia; Madhusudhan Venkadesan; John Fulkerson

Poster No. 907

**Varus Alignment Affects Femoral Cartilage And Meniscus Extrusion: No Correlation With Tibial Cartilage**

Satomi Abe; Keisuke Matsukura; Hiroshi Ito



## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-052      Knee - Growth, Development and Aging**

Poster No. 908

**Usefulness Of Baseline 3d Joint Space Width On Weight-bearing Ct In Comparison With 2d Joint Space Width On Radiographs In Predicting 24-month Worsening Of Knee Pain And Function In The Most Study**

Ryo Yoshikawa; Huan Cheng; Jianghua He; Don D. Anderson; Irina Tolstykh; John A. Lynch; Michael C. Nevitt; Neil A. Segal

Poster No. 909

**Femoral Bowing In The Coronal Plane: A Computed Tomography Analysis Of 1,313 International Femurs**

Arun Aneja; Jeffrey A. Foster; Jarod T. Griffin; Bernhard Hofstätter; Eben A. Carroll; Thuan V. Ly; David C. Landy



## LIST OF POSTERS

### Saturday, February 8, 2025

10:00 AM - 7:30 PM

Room #: North Hall A-C

#### **PS1-053      Knee - Injury and Healing**

Poster No. 910

##### **Macrophage Targeting Gd<sub>3</sub>N@c<sub>80</sub> Nanoparticles For Osteoarthritis Therapy In A Mouse Model**

Jasmine Xiao; Yi Zhang; Katie Cheng; Brock Manley; Jessica Qiu; Zuhaad Hameed; Yuan Xing; Leo Yang; Li Jin; Xudong (Joshua) Li

Poster No. 911

##### **Effects Of Remnant Tissue Preservation On Cyclops Lesions And Postoperative Knee Instability In Anterior Cruciate Ligament Reconstruction: A Propensity Score-matched Study**

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

Poster No. 912

##### **Short-term Immobilization Using Semi-rigid Casting Improves Early Tendon-to-bone Healing In A Murine Model Of Anterior Cruciate Ligament Reconstruction**

Yuki Suzuki; Yuki Okazaki; Chia-Hung Hung; Xuewu Xing; Wataru Morita; Leonardo Albertini Sanchez; Lauren Simonian; Julia S. Retzky; Alexander Piacentini; Hirotaka Iura; Matthew Covello; Laura Moore; Claire D. Eliasberg; Camila B. Carballo; Scott A. Rodeo

Poster No. 913

##### **Novel Knee Arthrometer For Quantifying A Simulated Clinical Pivot Shift: An Assessment In ACL Injured And Healthy Subjects**

Erin Berube; David Shamritsky; Akinola Oladimeji; Theresa Chiaia; Deborah Jones; Michael Parides; Danyal Nawabi; Andrew Pearle; Thomas Wickiewicz; Carl Imhauser

Poster No. 914

##### **Long-term Nonsteroidal Anti-inflammatory Drug Use Is Associated With Increased Risk Of Quadriceps Tendon Injury**

Alejandro M. Holle; Sailesh Tummala; Collin Braithwaite; Anikar Chhabra; Karan Patel

Poster No. 915

##### **Impact Of Injury Timing On Self-reported Outcomes In Elite Basketball Players**

Gabrielle C. Ma; Jessica L. Asay; Elka B. Rubin; Garry E. Gold



## LIST OF POSTERS

Poster No. 916

**Precision Imaging: Automated Metal Artifact Segmentation In Acl Mris Using K-means Clustering**

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

Poster No. 917

**A Shallow Trochlear Groove And Long Patella Are Correlated With Patellofemoral Cartilage Degradation At Least One Year Following Patellar Dislocation Or MPFL Reconstruction**

John J. Elias; Lutul D. Farrow; Ahmet H. Ok; Richard Lartey; Mei Li; Mingrui Yang; Xiaojuan Li

Poster No. 918

**Greater Rotational Knee Laxity Observed At 2nd Look Arthroscopy In Patients With Failed Meniscal Repair Performed At The Time Of Double Bundle Anterior Cruciate Ligament Reconstruction**

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

Poster No. 919

**Low Intensity Exercise Differentially Affects Tibial And Femoral Cartilage And Bone Tissue Degeneration And Improves Hindlimb Sensitization In A Preclinical Acl Rupture Model Of Post-traumatic Osteoarthritis**

Nicholas M. Pancheri; Emily Sverdrup; Nisha Kyathsandra; Jake Heinonen; Joshua Miller; Angela Lin; Robert Guldberg; Nick Willett

Poster No. 920

**Large Medial Posterior Tibial Slope Leads To Worse Instability Over Time After Anterior Cruciate Ligament Reconstruction**

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

Poster No. 921

**The Roles Of Regulatory-compliant Media And Inflammatory/Oxytocin Priming Selection In Enhancing Human Mesenchymal Stem/stromal Cell Immunomodulatory Properties**

Max Baron; Philip Drohat; Mahammad Gardashli; Tom M. Best; Dimitrios Kouroupis



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-054      Knee - Structure, Function and Mechanics**

Poster No. 922

**Muscle Activity Patterns During A Single-Leg Hop Landing In Healthy Males And Females**

Crystal J. Murray; Janine Molino; John D. Holtgrewe; Dominique A. Barnes; Payam Zandiyeh; Braden C. Fleming; Jillian E. Beveridge

Poster No. 923

**A Prospective Study Of The Association Between Tibial Plateau Articular Cartilage Geometry In Patients With A Sole Unilateral ACL Tear And In Patients With Both Unilateral And Subsequent Contralateral ACL Tears**

Aaron Dees; Mack Gardner-Morse; Pamela Vacek; Mickey Krug; Andrew Borah; Andrew Pechstein; Carl Imhauser; Bruce Beynon

Poster No. 924

**Evaluating The Repeatability Of The Pendulum Knee Drop Test For Soft-tissue Balance In Total Knee Arthroplasty**

Kevin Abbruzzese; Bernard Liebskind; Michael Dunbar; Jared Weir; Yogesh Mittal; Michael Mont; Sally LiArno

Poster No. 925

**Statistical Shape Modeling Of Knee Morphology For A Diverse Population**

Gabrielle J. Kindy; Ola Alsaadi; Peter J. Laz

Poster No. 926

**Relationship Between Knee Adduction Moment And Muscle Co-contraction During Level Walking With Healthy Adult.**

Tatsuya Mikami; Kengo Ukishiro; Kensaku Kawakami; Sho'ji Suzuki; Tatsunori Maeda; Koji Iwasaki; Rikiya Baba; Jyunki Shiota; Taiki Tokuhiro; Yuki Suzuki; Tomohiro Onodera; Eiji Kondo; Norimasa Iwasaki; Yasumitsu Ohkoshi

Poster No. 927

**Changes In Mechanical Environment Of Three Lower Extremity Joints After Total Knee Arthroplasty**



## LIST OF POSTERS

Junki Shiota; Yasumitsu Ohkoshi; Tomoka Sumiya; Tatsuya Mikami; Kota Miura; Kengo Ukishiro; Kensaku Kawakami; Koji Iwasaki; Yuki Suzuki; Taiki Tokuhiro; Rikiya Baba; Tatsunori Maeda; Tomohiro Onodera; Eiji Kondo; Norimasa Iwasaki

Poster No. 928

**Defining Anatomical Relationships Of The Tibial Tubercle To Inform Execution Of Tibial Tubercle Osteotomy In Revision Total Knees**

Tessa DeCicco; Timothy Damron; Andrew Laychur

Poster No. 929

**In Vivo Patellar Kinematics During Functional Activities In Medial Stabilized TKA: A Six-degree-of-freedom Analysis**

Sina Afzal; Pengwei Xiao; MohammadAmin RezazadehSaatlou; Anisha E. Gemmy; Zhijun Li; Michelle R. Shimizu; Isaiah Freeman; Oh-Jak Kwon; William T. Sampson; Anirudh Buddhiraju; Tony Lin-Wei Chen; Young-Min Kwon

Poster No. 930

**In Vivo Analysis Of Patellofemoral Kinematics Of Medially Stabilized Total Knee Arthroplasty During Lunge Activity**

Pengwei Xiao; MohammadAmin RezazadehSaatlou; Zhijun Li; Michelle R. Shimizu; Sina Afzal; Anisha E. Gemmy; William T. Sampson; Oh-Jak Kwon; Isaiah Freeman; Anirudh Buddhiraju; Tony Lin-Wei Chen; Young-Min Kwon

Poster No. 931

**ACL Bundles Elongation Patterns During High-impact Activities: An In Vivo Biplane Radiography Study**

Kohei Kamada; Tom Gale; Koji Nukuto; Volker Musahl; William Anderst

Poster No. 932

**Does Medially Stabilized Total Knee Arthroplasty Restore In Vivo Patellofemoral Kinematics Of Native Knees During Gait Activity?**

Pengwei Xiao; MohammadAmin RezazadehSaatlou; Zhijun Li; Michelle Shimizu; Sina Afzal; Anisha Gemmy; William T. Sampson; Oh-Jak Kwon; Isaiah Freeman; Tony Lin-Wei Chen; Anirudh Buddhiraju; Young-Min Kwon

Poster No. 933

**In Vivo 6 Degrees Of Freedom Tibiofemoral Kinematics Analysis Of Medially Stabilized Total Knee Arthroplasty During Sit-to-stand And Step-up Activities**



## LIST OF POSTERS

MohammadAmin RezazadehSaatlou; Pengwei Xiao; Zhijun Li; Michelle R. Shimizu; Sina Afzal; Anisha E. Gemmy; Oh-Jak Kwon; William T. Sampson; Anirudh Buddhiraju; Isaiah Freeman; Tony Lin-Wei Chen; Young-Min Kwon

Poster No. 934

**Evaluation Of In Vivo Tibiofemoral Kinematics In Medial Stabilized TKA During Lunge Activity**

Sina Afzal; MohammadAmin RezazadehSaatlou; Pengwei Xiao; Anisha Gemmy; Zhijun Li; Michelle R. Shimizu; Oh-Jak Kwon; William Sampson; Tony Lin-Wei Chen; Anirudh Buddhiraju; Isaiah Freeman; Young-Min Kwon

Poster No. 935

**Withdrawn**

Poster No. 936

**Analysis Of In Vivo Tibiofemoral Kinematics During Gait In Patients With Medially Stabilized Total Knee Arthroplasty**

Zhijun Li; Pengwei Xiao; MohammadAmin RezazadehSaatlou; Michelle R. Shimizu; Sina Afzal; Anisha E. Gemmy; Isaiah Freeman; William Sampson; Oh-Jak Kwon; Tony Lin-Wei Chen; Anirudh Buddhiraju; Young-Min Kwon

Poster No. 937

**The Prevalance Of Medial Collateral Ligament Complex Injuries On Magnetic Resonance Imaging In Anterior Cruciate Ligament-injured Knees And Their Impact On Knee Instability**

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

Poster No. 938

**Coupled Motion Of The Patellofemoral And Tibiofemoral Kinematics In Medially Stabilized Total Knee Arthroplasty**

Pengwei Xiao; MohammadAmin RezazadehSaatlou; Zhijun Li; Michelle R. Shimizu; Isaiah Freeman; Sina Afzal; Anisha E. Gemmy; William T. Sampson; Oh-Jak Kwon; Tony Lin-Wei Chen; Anirudh Buddhiraju; Young-Min Kwon

Poster No. 938A

**Prevalence And Associated Injuries In Patients With Knee Cysts: An Epidemiological Study**

Avianna Arapovic; Elijah Auch; Matthew R. Cederman; Noopur Ranganathan; Dhun Chauhan; Clark Yin; Leonardo Cavinatto; Ehab Saleh; Betina Hinckel

Poster No. 939



## LIST OF POSTERS

**Size Considerations In The Harvesting Of Quadriceps Tendon Grafts - A Biomechanical Study Investigating The Effects Of Graft Harvest On Mechanical Properties Of The Donor Tendon**

Anja M. Wackerle; William G. Gamble; Armin Runer; Svenja A. Höger; Camila Grandberg; Michael P. Smolinski; Mark C. Miller; Patrick J. Smolinski; Volker Musahl

Poster No. 940

**Tibial Side Backup Fixation In Anterior Cruciate Ligament Reconstruction: A Cadaveric Biomechanical Study Of Three Graft Types**

Darren B. Hart; Sara Gustafson; Eva Gusnowski; Robert Longstaffe

Poster No. 941

**Effects Of Growth Hormone Receptor (GHR) Conditional Knockout On Osteoarthritis (OA) Development In Mice**

Siqi Ren; Shouan Zhu; Tom Martino; Abhijit Sukul; Huanhuan Liu; Darlene E. Berryman; John Kopchick

Poster No. 942

**Preoperative Anterior Tibial Subluxation With Acl Deficient Knees Is Associated With The Knee Stability And Medial Meniscus Tear**

Hibiki Kakiage; Kazuhisa Hatayama; Masanori Terauchi; Shogo Hashimoto; Hirotaka Chikuda

Poster No. 943

**Articular Cartilage And Meniscus Histopathology In Osteoarthritis: A-Proof-Of-Concept Study**

Iida Hellberg; Ville-Pauli Karjalainen; Shuvashis Das Gupta; Nodira Khoshimova; Mikko A.J. Finnilä; Aleksandra Turkiewicz; Amanda Sjögren; Patrik Önerfjord; Jon Tjörnstrand; Martin Englund; Simo Saarakkala

Poster No. 944

**Knee Braces May Reduce Valgus Rotations In MCL Injured Knees**

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

Poster No. 945

**Ideal Knee Braces May Reduce The In-Situ Force In The ACL In MCL Injured Knees**

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

Poster No. 946

**Using 3D Shape Analysis To Assess Patellar Morphological Variability - Considerations For Patellar Instability**

Jonathan Tobin; Madison Metheny; Faheem Farooq; Megan Birmingham; Phillip Dunn; John Higgins; Jonathan Millard





## LIST OF POSTERS

---

Poster No. 947

**Development Of A Mechanical Patellar Tendon Reflex Model For Total Knee Arthroplasty Assessments**

Bernard Liebskind; Kevin Abbruzzese; Sally LiArno

Poster No. 948

**Multi-dimensional Characterization Of Knee Joints In A Preclinical Mouse Model**

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

Poster No. 949

**Characterizing Shared Gait Abnormalities Between Rodents And Humans With Knee Osteoarthritis**

Kaitlin Southern; Ania L. Lipat; Carlos Cruz; Yenisel Cruz-Almeida; Kyle Allen

Poster No. 950

**Withdrawn**



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-055      Knee - Surgical and Non-Surgical Interventions**

Poster No. 951

**The Epigenetic Reader Inhibitor CPI-203 Inhibits Extracellular Matrix Deposition In Vitro**

Mason F. Carstens; Adam E. Pagnano; Oliver B. Dilger; Cole E. Bothun; Benjamin D. Mallinger; Ashley N. Payne; Mark E. Morrey; Joaquin Sanchez-Sotelo; Daniel J. Berry; Roman Thaler; Amel Dudakovic; Matthew P. Abdel

Poster No. 952

**Infantile Blount Disease: Can We Predict Spontaneous Resolution?**

Joseph N. Charla; Taikhoom Dahodwala; Zachariah Samuel; Edina Gjonbalaj; Leila Mehraban Alvandi; Melinda Sharkey

Poster No. 953

**Elucidating The Chondroprotective Properties And Fluid Extravasation Into Surrounding Tissues Of Hyperosmolar Saline Irrigation Solutions In Arthroscopic Procedures**

Chantelle C. Bozynski; Aaron M. Stoker; Lasun O. Oladeji; Matthew J. Smith; James P. Stannard; James L. Cook

Poster No. 954

**Factors Associated With Lost To Follow-up After Anterior Cruciate Ligament Reconstruction**

Dylan Hood; Aaron Voshage; Hunter Puckett; Shen-Ying (Richard) Ma; Kylee Rucinski

Poster No. 955

**High Success And Low Complication Rates Following Revision Tibial Tubercle Osteotomy**

Nathan Varady; Tyler Uppstrom; Aakash Shah; Morgan Rizey; Ava Neijna; Andreas Gomoll; Sabrina Strickland

Poster No. 956

**An In-silico Method Of Evaluating The Effect Of Tibial Tubercle Osteotomy On Patellofemoral Contact Mechanics**

Thomas Turinske; Andrew Phillips; Kofi Acheampong; Steven Mell; Adam B. Yanke; Hannah J. Lundberg

Poster No. 957



## LIST OF POSTERS

### **Mechanical And Kinematic Alignment In Total Knee Arthroplasty: A Comparative Study On Sizing Discrepancies**

Jakub Gocal; Amy Wozniak; Nicholas Brown

Poster No. 958

### **First Clinical Results Adjustable Fixation Device In Anterior Cruciate Ligament Reconstruction (aclr) With Quadriceps Tendon Autograft: A Retrospective Study**

Ronak Patel; Sean Tierney; Lauren Lucina

Poster No. 959

### **Personalized Hopping Thresholds For Females Recovering From ACL Reconstruction**

Ryan J. Whelan; Devin K. Kelly; Joe M. Hart

Poster No. 960

### **Pure Distalization Tibial Tubercle Osteotomy Does Not Result In Posteriorization Of The Tibial Tubercle**

Nathan Varady; Nicolas Pascual-Leone; Ava Neijna; Andreas Gomoll; Sabrina Strickland

Poster No. 961

### **Cartilage Degradation Following MPFL Reconstruction And Conservative Treatment For Patellar Dislocation: Quantitative MRI Evaluation**

John J. Elias; Lutul D. Farrow; Richard Lartey; Mei Li; Ahmet H. Ok; Carl Winalski; Xiaojuan Li

Poster No. 962

### **Withdrawn**

Poster No. 963

### **Comparison Of Quadriceps Tendon Autograft Vs. Quadriceps Tendon Autograft With Lateral Extra-Articular Tenodesis For ACL Reconstruction**

Alexandra Stump; Sean Renfree; Joseph Brinkman; Sailesh Tummala; Alexander Hoffer; Kostas Economopoulos

Poster No. 964

### **Radiographic Evaluation Of The Accuracy Of Implant Placement In The Robotic Assisted Uka**

Koji Seike; Takatori Iriuchishima; Kensaku Hamamoto; Reiji Okamoto

Poster No. 965

### **Increasing The Posterior Tibial Slope Lengthens The Medial Collateral Ligament During Passive Flexion-extension**

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



## LIST OF POSTERS

---

Poster No. 966

**Morphological Differences In The Proximal Tibiofibular Joint Between Acl Intact And Acl Tear Subjects**

Takanori Iriuchishima; Bunsei Goto

Poster No. 967

**Comparing Patient-reported Outcomes After Triamcinolone And Extended-release Triamcinolone Injections In A Non-randomized Setting, A Single Center Experience**

Alexander S. Yunke; Paul Myers; Mohammad N. Haider; Nomi Weiss-Laxer; Leslie Bisson

Poster No. 968

**Novel Safety Device Eliminates Neurovascular Injury In Medial-opening Wedge High Tibial Osteotomy**

Masafumi Itoh; Umito Kuwashima; Junya Itou; Shunya Otani; Ken Okazaki

Poster No. 969

**The Effects Of The Q-angle, Tibiofemoral Rotation, And Patella Alta On Patellofemoral Kinematics Of Hinge TKA**

Daniele Marras; Yashar A. Behnam; Lauren Ferris; Brian Haas; Chadd W. Clary

Poster No. 970

**Independent Tensioning Creates Internal Brace/Ligament Repair Stabilization Differential Favorable For Reinforcement Without Over-constraint**

Jim Hsu; Soheil Sabzevari; Isabelle Shen; Steven Tommasini

Poster No. 971

**Chondrotoxicity Of Lidocaine And Bupivacaine On Cartilage**

Annie Porter; Naod Asres; Chloe Kappen; Ying Peng; Michael Axe; X Lucas Lu



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-056      Meniscus - Growth, Development and Aging**

Poster No. 972

**Accumulation Of Advanced Glycation End-products Ages And Enzymatic Crosslinks In Human Meniscus And Meniscus Posterior Root**

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

Poster No. 973

**Type V Collagen Orchestrates The Initial Matrix Templating In Developing Articular Cartilage And Meniscus**

Bryan Kwok; Mingyue Fan; Jiaqi Xiang; Aanya Mohan; Michael Newton; Neil Patel; Yuchen Liu; Thomas Li; Sara Tufa; Douglas Keene; David E. Birk; Eiki Koyama; Nathaniel A. Dymont; Robert L. Mauck; Tristan Maerz; Lin Han

Poster No. 974

**In Silent Information Regulator 2 Ortholog 1 Knock-in Mouse, Progression Of Meniscal Degeneration Is Delayed**

Shohei Sano; Takehiko Matsushita; Kenjiro Okimura; Yuta Nakanishi; Tetsuya Yamamoto; Kyohei Nishida; Kanto Nagai; Noriyuki Kanzaki; Yuichi Hoshino; Ryosuke Kuroda

Poster No. 975

**Melt-electrofibrillation Enables Collagen Alignment In Meniscus Constructs**

Mylene de Ruijter; Alba Pueyo Moliner; Lennard Spauwen; Angela Garcia Grech; Paulina Nunez Bernal; Jasmijn Korpershoek; Matthias Ryma; Jurgen Groll; Jos Malda

Poster No. 976

**Human Meniscus Histopathological And Transcriptomic Changes At Early And Advance Stages Of Knee Osteoarthritis**

Takuya Sakamoto; Merissa Olmer; Rachel Miller; Anne-Marie Malfait; Darryl D'Lima; William Bugbee; Hannah Swahn; Martin Lotz



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-057      Meniscus - Injury and Healing**

Poster No. 977

**Quantitative MRI Of The Menisci With UTE T2\* And T1rho Following ACL Injury And Prior To Reconstruction: Effects Of Sex And Concomitant Lateral Meniscus Injury**

Abigail Costello; Willem Barwin; Michael DeSarno; Pamela Vacek; Mickey Krug; Mack Gardner-Morse; Rebecca choquette; Matthew Failla; Niccolo Fiorentino; Timothy Tourville; Matthew Geeslin; Michael Toth; Bruce Beynnon

Poster No. 978

**Tear-filling Bioactive Cell Carrier Stimulates Meniscal Fibrocartilage Mending In A Yucatan Minipig Model**

Salomi Desai; Jay Trivedi; Abigail Boduch; Cecily Adler; Crystal J. Murray; Braden C. Fleming; Brett Owens; Chathuraka Jayasuriya

Poster No. 979

**Evaluation Of Dynamic Medial Meniscus Extrusion After Repair With Peripheral Stabilization Suture For Medial Meniscus Posterior Root Tears**

Ryota Takase; Takashi Ohsawa; Shogo Hashimoto; Hibiki Kakiage; Hirotaka Chikuda

Poster No. 980

**Discoid Lateral Meniscus Is A Risk Factor For A Medial Meniscus Posterior Root Tear**

Ryosuke Yamashita; Takayuki Furumatsu; Yuki Okazaki; Keisuke Kintaka; Yusuke Yokoyama; Masanori Tamura; Koki Kawada; Toshifumi Ozaki; Tsubasa Hasegawa



## LIST OF POSTERS

### Saturday, February 8, 2025

10:00 AM - 7:30 PM

Room #: North Hall A-C

#### **PS1-058      Meniscus - Structure, Function and Mechanics**

Poster No. 981

#### **The Chondroprotective Effect Of The Float-ring Meniscus Implant As A Cushioning Device Following Meniscectomy**

Go Yamako; Izumi Sato; Isuru Udayanga; Etsuo Chosa

Poster No. 982

#### **Elastic Damage Of Fiber Reinforced Biphasic Coupled Transversely Isotropic Veronda-westmann Model As An Accurate Representation Of Matrix And Fiber Damage**

Gabi Schwartz; Raul Santamaria; Thomas Best; Alicia Jackson; Francesco Travascio

Poster No. 983

#### **Biomechanical Characterization Of The Human Medial Meniscotibial Ligament**

Mattheau Bonner; Jack Trubiano; Dina Vechnyak; Michael Dunn; Charles Gatt

Poster No. 984

#### **Mri Evaluation For Degenerative Medial Meniscal Extrusion Influenced By Radial Tear**

Tomoya Iseki; Shintaro Onishi; Ryo Kanto; Yoshitaka Nakao; Shunsuke Akai; Akira Kawai; Hiroshi Nakayama; Tachibana Toshiya

Poster No. 985

#### **Medialized Repair Of Medial Meniscus Posterior Root Tear Results In Significant Decrease Of Contact Area Compared To Anatomical Repair In Early Stance During Simulated Gait**

Kalle Chastain; Tyler Uppstrom; Christopher Brusalis; Brett Steineman; Andreas Gomoll; Sabrina Strickland; Suzanne Maher

Poster No. 986

#### **Decreased Expression Of Frizzled-related Protein B Is Associated With Increased Expression Of $\beta$ -catenin In The Calcification Of Degenerative Menisci**

Jisun Kim; Yusuke Inoue; Ken Kumagai; Kimi Ishikawa; Takuma Naka; Daiki Watanabe; Kiyotaka Nagashima; Yutaka Inaba



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-059      Meniscus - Treatment and Therapeutics**

Poster No. 987

**Functionalized PET Scaffolds Promote Meniscus-like Matrix Production**

Graciosa Q. Teixeira; Luisa de Roy; Anna-Lotta Feldmeier; Anita Ignatius; Carsten Linti; Andreas M. Seitz

Poster No. 988

**The Effect Of Cellular Augmentation On Mechanical Properties Of Meniscus Allografts**

Katherine L. Lydon; Jasmijn Korpershoek; Caroline Struijk; Christopher Nagelli; Aaron Krych; Daniel Saris

Poster No. 989

**Lateral Meniscus Posterior Root Repair Combined With Anterior Cruciate Ligament Reconstruction: Superior Outcomes With All-inside Suture Vs. Trans-capsular Suture**

Kazuhisa Hatayama; Satoshi Nonaka; Hibiki Kakiage; Masanori Terauchi

Poster No. 990

**Meniscal Allograft Transplantation In The Young Active Population**

Emily M. Shipman; William M. Weiss

Poster No. 991

**Influence Of Initial Tension On Transtibial Pullout Repair For Medial Meniscus Posterior Root Tears: A Retrospective Comparative Study**

Masanori Tamura; Yusuke Yokoyama; Koki Kawada; Takayuki Furumatsu; Yuki Okazaki; Toshifumi Ozaki; Tsuba Hasegawa; Kazuhisa Sugiu

Poster No. 992

**Crutch-assisted Gait Significantly Reduces The Loading On Medial Meniscus Posterior Root Repair Sutures**

Jonas Schwer; Matthias Sukopp; Nina Schwab; Anita Ignatius; Thomas Kappe; Andreas M. Seitz

Poster No. 993

**Extracellular Vesicles From Cartilage Progenitors Stimulate Type II Collagen Expression And Wound Healing In Meniscal Cells**

Maxwell D. Chen; Daniel Betensky; Jay Trivedi; Salomi Desai; John Twomey-Kozak; Sicheng Wen; Chathuraka Jayasuriya





## LIST OF POSTERS

---

Poster No. 994

**Establishment Of A Human Meniscus Culture Model Simulating An Inflammatory Environment**

Graciosa Q. Teixeira; Jessica Beyermann; Maria Ahrens; Michael Gross; Chiara Vatter; Jonas Schwer; Luisa de Roy; Anita Ignatius; Andreas M. Seitz

Poster No. 995

**Establishment Of Pullout Repair Of Medial Meniscus Posterior Root Tear In Rats**

Toyohiro Katsumata



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-060 Hip - Diagnostics**

Poster No. 996

**Impact Of AI And Examiner Experience On The Diagnostic Accuracy Of Hip Ultrasonography: A Study Using Phantom Models**

Yusuke Ohashi; Tomohiro Shimizu; Daisuke Takahashi; Katsuhisa Yamada; Norimasa Iwasaki

Poster No. 997

**Does Bony Morphology Dictate Which Side Initially Develops Symptoms In Bilaterally Dysplastic Hips?**

Madison M. Wissman; Jiayi Sun; John C. Clohisy; Benjamin Northrup; Michael D. Harris

Poster No. 998

**Sex Differences In Normal Acetabular Morphology Among Young Adults: A 3D Analysis Of 3,712 Asymptomatic Hips**

Mohammadreza Movahhedji; Shanika De Silva; Young-Jo Kim; Eduardo Novais; Ata M. Kiapour

Poster No. 999

**Pre-arthritic Hip Disease: Isolated Labral Pathology Is A Valid Diagnosis**

Paul Beaulé; Marc-Antoine Ricard; Lissa Pacheco; Koorosh Kashanian; Stéphane Poitras; Sasha Carsen; George Grammatopoulos; Geoffrey Wilkin



## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-061      Hip - Growth, Development and Aging**

Poster No. 1000

**A 3D Analysis Of The Acetabulum Sagittal Orientation And Its Relationship To The Spinopelvic Alignment In A Large Cohort Of Asymptomatic Hips**

Mohammadreza Movahhedi; Munif A. Hatem; Shanika De Silva; Sarah Bixby; Young-Jo Kim; Eduardo Novais; Ata M. Kiapour



## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-062 Hip - Injury and Healing**

Poster No. 1001

**Internal Rotation And 60-degree Flexion Of The Hip Can Cause Rommens Type IIIa Fragility Fracture Of The Pelvis**

Kunihiko Arakawa; Takashi Suzuki; Takahiro Inui; Yoshinobu Watanabe; Hiroataka Kawano

Poster No. 1002

**Withdrawn**

Poster No. 1003

**Is The Level Of Fracture Line As Important As The Fracture Angle In Treating Femoral Neck Fracture? -a Finite Element Analysis-**

Sakura Kuniyoshi; Satoshi Nakasone; Takahiro Igei



## LIST OF POSTERS

### Saturday, February 8, 2025

10:00 AM - 7:30 PM

Room #: North Hall A-C

#### **PS1-063 Hip - Structure, Function and Mechanics**

Poster No. 1004

#### **Altered Hip Extensor And Core Muscle Synergy In Symptomatic Cam FAI During The Hurdle Step Task**

Etienne Joulin; Mohamad Shatila; Trevor Birmingham; Ryan Degen; Geoffrey Ng

Poster No. 1005

#### **Analysis Of The Intestinal Microbiota In Idiopathic Osteonecrosis Of The Femoral Head.**

Kosuke Arita; Ryodai Yamamura; Tomohiro Shimizu; Shunichi Yokota; Hotaka Ishizu; Daisuke Takahashi; Norimasa Iwasaki

Poster No. 1006

#### **Increased Microdamage And Altered Spinopelvic Alignment In Subchondral Insufficiency Fracture Of The Femoral Head Compared To Osteoarthritis**

Takahiro Negayama; Ken Iwata; Masashi Shimamura; Teppei Senda; Takanori Miki; Masakazu Ishikawa

Poster No. 1007

#### **Evaluating Femoroacetabular Contact Stress In Posterior Wall Acetabulum Fractures Associated With Marginal Impaction: A Finite Element Study**

Gregory R. Roytman; Sarah E. Rizzo; Steven M. Tommasini; Daniel H. Wiznia; Brad J. Yoo

Poster No. 1008

#### **Positional Difference In Deep Femoral Artery During Intramedullary Nailing For Proximal Femoral Fractures**

Yuuki Mitani; Kazuhiro Ikeda; Takamasa Kudo; Sho Kohyama; Tomokazu Yoshioka; Takaji Yanai; Yuichi Yoshii

Poster No. 1009

#### **Does Periacetabular Osteotomy Improve Hip Microinstability In Static Postural Change In Symptomatic Hip Dysplasia?**

Kenji Kitamura; Masanori Fujii; Satoshi Hamai; Daisuke Hara; Itaru Kawashima; Shinya Kawahara; Goro Motomura; Taishi Sato; Ryosuke Yamaguchi; Takeshi Utsunomiya; Scott Banks; Yasuharu Nakashima



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-064 Hip - Surgical and Non-Surgical Interventions**

Poster No. 1010

**Does Preoperative Virtual Reality Experience Enhance Implant Positioning Accuracy In Total Hip Arthroplasty?**

Masaya Ueno; Shunsuke Kawano; Koichiro Kishikawa; Masanori Fujii; Tadatsugu Morimoto

Poster No. 1011

**Automated Femoral Stem Size Estimation From 2D Hip Images Using Non-rigid Image Registration**

Kohta Ito; Shimpei Watanabe; Mitsunori Tada; Takeo Nagura; Masaya Nakamura

Poster No. 1012

**Standardizing Impaction Energy In Orthopedic Implant Testing: Insights From A Cadaveric Analysis Using Different Surgical Approaches**

Akeem Downer; Sébastien Lustig; Lisa Sesink Clee; Shammodip Roy; Ananthkrishnan Gopalakrishnan; Ilissa Hamilton

Poster No. 1013

**Parallel Trajectory Of Cannulated Screws Is Biomechanically Advantageous To Diverging Trajectory In Moderate Pauwels Angle Femoral Neck Fractures**

Rohan R. Patel; Cory Hewitt; Raghunandan Nayak; Alyssa Peterson; Tomer korabelnikov; Nathan Deming; Krystyna Gielo-Perczak; Adam Lindsay

Poster No. 1013A

**Evaluating Fragment Fixation And Changes In Hip Joint Center Following Periacetabular Osteotomy For Hip Dysplasia**

Roshan Mara; Nicholas Dunbar; Shuyang Han; Alexis Aboulafia; Alfred Mansour III

Poster No. 1014

**Local Bone Density On Preoperative CT Predicts Shortening In Well-reduced Geriatric Intertrochanteric Hip Fractures**

Mike Z. Kuhn; Jayanth Kashyap; Gele Moloney

Poster No. 1015



## LIST OF POSTERS

**Labral Tear Size As A Predictor Of Long-term Outcomes And Conversion To Total Hip Arthroplasty: Minimum 8 Year Follow-up**

Srish Chenna; Jeffrey Mun; Brandon Allen; Rachel Poutre; Stephen Gillinov; Bilal Siddiq; Nathan Cherian; Christopher Eberlin; Michael Kucharik; Scott Martin

Poster No. 1016

**Five-year Outcomes Following Arthroscopic Labral Repair Via Puncture Capsulotomy**

Rachel L. Poutre; Jeffrey Mun; Brandon Allen; Srish Chenna; Stephen Gillinov; Bilal Siddiq; Nathan Cherian; Christopher Eberlin; Michael Kucharik; Scott Martin

Poster No. 1017

**Comparison Of Graft Types For Acetabular Labrum Reconstruction In A Preclinical Canine Model**

Brent Prenger; James L. Cook; Chantelle C. Bozynski; Cristi R. Cook; Aaron M. Stoker; Keiichi Kuroki; Brett Crist; Steven DeFroda

Poster No. 1018

**Sex Differences In Common Hip Disorders And Preservation Procedures Among Pediatric And Young Adult Patients: A Natural Language Processing Analysis Of 8,328 Patients**

Nazgol Tavabi; timothy williamson; andre weiss; Yi-Meng Yen; travis matheney; michael millis; Young-Jo Kim; eduardo novais; Ata M. Kiapour

Poster No. 1019

**Post-operative Opioid Usage And Disposal After Hip Arthroscopy: A Prospective Cohort Analysis**

Rachel L. Poutre; Jeffrey Mun; Srish Chenna; Brandon Allen; Stephen Gillinov; Bilal Siddiq; Nathan Cherian; Christopher Eberlin; Scott Martin

Poster No. 1020

**Revision Hip Arthroscopy: Assessing Prevalence Of Psychiatric Diagnosis By DSM Criteria**

Ali S. Noorzad; Nicholas A. Felan; Alyson Speshock; Alexa Dietrich; Dane Lind; David KupperSmith; Grant J. Dornan; Marc J. Philippon

Poster No. 1021

**Kinematic-driven Contact Model For Optimizing Hip Biomechanics After Periacetabular Osteotomy**

Carey Clark; Nicholas Dunbar; Shuyang Han; Alexis Aboulafia; Alfred Mansour III

Poster No. 1022

**Quantitative Evaluation Of Hip Muscles Using Ct Data With Automated Segmentation Technology In Total Hip Arthroplasty Patients Is Associated With Postoperative Patient Posture**

Shogo Yokota



## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-065      Tumors - Genetics**

Poster No. 1023

**Next-generation Sequencing Approach To Characterize Slow-cycling Cells In Ewing Sarcoma**

Yuta Nakamatsu; Naomasa Fukase; Hitomi Hara; Ryoko Sawada; Shuichi Fujiwara; Tomohiro Miyamoto; Shunuke Yahiro; Takashi Aoi; Michiyo Koyanagi-Aoi; Ryosuke Kuroda; Toshihiro Akisue

Poster No. 1024

**Downregulation Of Foxo3a By DEPDC1/ EEF1a1 Promotes Osteosarcoma Progression**

Shang-You Yang; Lin Shen; Morgan Bretches; Riley Drees; Aijun Zhang; Bin Ning





## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-066 Tumors - Metastatic**

Poster No. 1025

**Biomechanical Modeling Of Metastatic Acetabular Defects: Influence Of Tumor Location On Risk Of Fracture**

Jacob Doddridge; Hongjia He; Ernest Conrad; Nicholas Dunbar

Poster No. 1026

**Targeted Redox Therapy With Cold Plasma For Breast Cancer Spine Metastasis**

Laura Bouret; Jean-Baptiste Billeau; Michael Weber; Derek Rosenzweig; Stephan Reuter

Poster No. 1027

**Effect Of Blue Light On Metastatic Bone Tumors**

Keisuke Nishidono; Toshihiko Nishisho; Shunsuke Tamaki; Koichi Sairyo

Poster No. 1027A

**Predicting Pathologic Fracture Risk In Patients With Metastatic Prostate Cancer**

Levi M. Travis; Juliano Prado; Anastasiya Drandarov; Jessyka Desrosiers; Meagan Tibbo; Dominic Campano; Erik J. Geiger; Francis Hornicek; Thomas H. Temple; Brooke M. Crawford

Poster No. 1028

**Platelet Promotes Osteosarcoma Metastasis**

Jiro Ichikawa; Rikito Tatsuno; Tomonori Kawasaki; Takahiro Jubashi; Hiroyuki Kono; Masanori Wako; Satoshi Ochiai; Masao Saitoh; Katsue Suzuki-Inoue; Hirotaka Haro

Poster No. 1029

**Enhancing Drug Transport Using Treadmill Walking And Full Body Vibration To Bone Tumors Monitored By PET/CT**

Michelle J. Gelbs; Rodrigo B. Guerra; Eda Biricik; Dillon Murugesan; Vinagolu K. Rajesekhar; Valerie A. Longo; Darren R. Veach; Pat B. Zanzonico; Gene R. DiResta; John H. Healey; Susannah P. Fritton



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-067 Tumors - Primary Tumors**

Poster No. 1030

**Enhancing The Effectiveness Of Chemotherapy In Osteosarcoma By Targeting Tumour-associated Macrophages (TAMs) Through STING Activation Without Inducing Chronic Activation**

Jordan C. O'Donoghue; Fiona E. Freeman

Poster No. 1031

**Factors Associated With Short-term Soft Tissue Complications Following Upper Extremity Sarcoma Resection**

Kameel Khabaz; Giovanni M. Gamalong; Nicole J. Newman-Hung; Nicholas Bernthal; Lauren E. Wessel

Poster No. 1032

**Pediatric Axial Ewing Sarcoma: A Retrospective Population Based Survival Analysis**

Eric M. Lassiter; Brett A. Hoffmann; Alexander J. Didier; Christopher Sanford Jr.; Santiago A. Lozano-Calderon

Poster No. 1033

**Is Saculator Useful In Predicting Prognosis Of Retroperitoneal Sarcoma?**

Akira Shiga; Yutaka Nezu; Kota Washimi; Tomotaka Yoshida; Shintaro Fujita; Masanobu Takeyama; Yutaka Inaba

Poster No. 1034

**Roles Of Sprr1a In Tumorigenesis Of Osteosarcoma: Insights From Newly Generated Artificial Cancer Stem Cells**

Tomohiro Miyamoto; Shuichi Fujiwara; Hitomi Hara; Naomasa Fukase; Ryoko Sawada; Yuta Nakamatsu; Takashi Aoi; Michiyo Koyanagi Aoi; Ryosuke Kuroda; Toshihiro Akisue

Poster No. 1035

**Dedifferentiation Of Atypical Lipomatous Tumor/ Well-differentiated Liposarcoma**

Masatake Matsuoka; Tomohiro Onodera; Koji Iwasaki; Dai Sato; Yoshiaki Hosokawa; Eiji Kondo; Norimasa Iwasaki



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-068      Tumors - Treatment and Therapeutics**

Poster No. 1036

**Association Of Endoplasmic Reticulum Stress And Myc Pathways In Bone And Soft Tissue Sarcoma Cell Lines**

Yoshiyuki Suehara; Yumi Ono; Satoshi Kamio; Masachika Ikegami; Eisuke Kobayashi; Akira Kawai; Shinji Kohsaka

Poster No. 1037

**Non-surgical Advances In The Treatment Of Multiple Myeloma: Implications For Orthopedic Surgery From The National Cancer Database**

Davis T. Hedbany; Timothy A. Damron

Poster No. 1038

**Neoadjuvant Chemotherapy Is Associated With Reduced Amputation For Synovial Sarcoma Of The Lower Extremity**

Charlotte F. Wahle; Sara Sakowitz; Nicole J. Newman-Hung; Nicholas Bernthal; Peyman Benharash; Lauren E. Wessel

Poster No. 1039

**Brachytherapy For Soft Tissue Sarcoma: Maintaining Local Control While Minimizing Complications**

Eric Kholodovsky; Julien Montreuil; Moses Markowitz; Sergio Torralbas Fitz; Dominic Campano; Erik Geiger; Francis Hornicek; Brooke Crawford; Martin Keisch; H Thomas Temple

Poster No. 1040

**An In Vitro Heterochronic Parabiosis Model Demonstrates Naked Mole Rat Serum Causes Decreased Cellular Proliferation In Breast Cancer Cells**

Jonathan Morris; Elizabeth van der Bijl; Shervin Oskoueji; Young Jang

Poster No. 1041

**Establishment Of Treatment Focusing On Glutamine Metabolism In Clear Cell Sarcoma And Synovial Sarcoma**

Nobuhiko Hasegawa; Kyllie Smith-Fry; Rahmon Kanmodi; Li Li; Lara Carroll; Rahi Patel; Linda Morrison; Kevin B. Jones



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-069 Clinical Research - Big Data Research**

Poster No. 1042

**Using Precision Modeling To Analyze Intra-articular Injections Of Nstride<sup>®</sup> Aps In Knee Osteoarthritis: Reproducible Feature Selection Utilizing A Maximum Relevance-minimum Redundancy Approach**

Kathleen Steckbeck; Nima Heidari; Stefano Olgiati; Davide Meloni; Jennifer Woodell-May

Poster No. 1043

**Incidence And Predictors Of Diagnosed Vertebral Fractures In U.S. Post-menopausal Women: A Nationwide Analysis**

Beatrice M. Katsnelson; Anthony E. Seddio; Katelyn E. Rudisill; Albert H. Lee; Jonathan N. Grauer

Poster No. 1044

**A Large Database Cohort Study Comparing Delayed Surgery And Reoperation Rates In Distal Radial Fractures Previously Treated Operatively Versus Nonoperatively**

Emily M. Shipman; Katelyn Cole; Natalie R. Black

Poster No. 1045

**Posterior Lumbar Fusion Is Being Performed For Patients Of Increasing Comorbidity Burden Over The Years, But Adverse Events Are Not Going Up: Getting Safer For Sicker Patients**

Adam D. Winter; Anthony E. Seddio; Michael J. Gouzoulis; Beatrice M. Katsnelson; Wesley Day; Daniel R. Rubio; Arya G. Varthi; Jonathan N. Grauer

Poster No. 1046

**Are Machine Learning Algorithms “Fair” In Predicting Extended Length Of Stay After Primary Total Knee Arthroplasty? An ACS-NSQIP Database Analysis**

Marium Raza; Michelle R. Shimizu; Pengwei Xiao; Zhijun Li; Anisha Gemmy; Sina Afzal; Oh-Jak Kwon; MohammadAmin RezazadehSaatlou; William Sampson; Isaiah Freeman; Tony Lin-Wei Chen; Anirudh Buddhiraju; Young-Min Kwon

Poster No. 1047

**Assessing The “Fairness” Of Non-home Discharge Prediction Of Machine Learning Algorithms In Revision Total Knee Arthroplasty**



## LIST OF POSTERS

Marium Raza; Michelle R. Shimizu; Pengwei Xiao; Zhijun Li; Sina Afzal; Anisha Gemmy; Oh-Jak Kwon; MohammadAmin RezazadehSaatlou; William Sampson; Isaiah Freeman; Tony Lin-Wei Chen; Anirudh Buddhiraju; Young-Min Kwon

Poster No. 1048

**Machine Learning Models Predict Postoperative Delirium In Patients Undergoing Total Hip And Knee Arthroplasty Periprosthetic Fracture Surgery: An ACS-NSQIP Database Analysis**

Zhijun Li; Oh-Jak Kwon; Pengwei Xiao; Marium Raza; MohammadAmin RezazadehSaatlou; Sina Afzal; Anisha Gemmy; William Sampson; Michelle R. Shimizu; Tony Lin-Wei Chen; Anirudh Buddhiraju; Isaiah Freeman; Young-Min Kwon

Poster No. 1049

**Following Primary Tka, Organ Cobalt And Chromium Concentrations Exceed 100 Parts Per Billion**

Shabnam Aslani; Peter W. Kurtz; Michael A. Kurtz; Bailey Bond; Nicolas S. Piuuzzi; William Mihalko; Jeremy Gilbert; Steven Kurtz

Poster No. 1050

**Machine Learning Identifies Spine Surgery Research Topic Trends Over A Decade Of Research**

Maggie Wang; Lorenzo Deveza

Poster No. 1051

**Diabetic Management And Infection Risk In Total Ankle Arthroplasty**

Albert T. Anastasio; Kevin Wu; Alexandra N. Krez; Conor N. O'Neill; Grayson M. Talaski; Kishen Mitra; Samuel Adams; James K. DeOrio; Mark E. Easley; James A. Nunley

Poster No. 1052

**Modifiable Factors Influencing No-Show Rates In Orthopaedic Oncology Clinic**

Kameel Khabaz; Nicole Bohr; Nicole J. Newman-Hung; Sammy Allaw; Lauren Wessel

Poster No. 1053

**Impact Of Low-density Lipoprotein Levels On Rates Of Pseudarthrosis After Anterior Cervical Discectomy And Fusion**

Ankit Hirpara; Cheryl Ackert-Bicknell; Vikas Patel

Poster No. 1054

**Use Of National Trauma Data Bank In Orthopedic Trauma Research: A Bibliometric Analysis**

Zodina Beiene; Reginald Conley; Meir Marmor

Poster No. 1054A



## LIST OF POSTERS

---

**Opioid Utilization During Emergency Department Visits For Ankle Sprains From 2016-2021: A National Analysis**

Christine Ramdin

Poster No. 1055

**Epidemiology Of Boxing Injuries Presenting To US EDs From 2004-2023**

Sia Cho; Samantha Watson; Pranav Bajaj; Connor Workman; Vehniah Tjong

Poster No. 1056

**Using Predictive Modeling And Machine Learning To Predict Surgical Site Infection Among Patients Undergoing Posterior Cervical Spine Surgery**

Kevin Y. Heo; Prashant V. Rajan; Emilio Arellano; John M. Rhee; Sangwook T. Yoon

Poster No. 1057

**Patients With A Colostomy Face Increased Risk For Perioperative Complications Following Lumbar Discectomy**

Lucas Y. Kim; Jonathan N. Grauer

Poster No. 1058

**Chronic Steroid Use Is Associated With 30-day Postoperative Complications After Surgical Treatment Of Proximal Humerus Fractures**

Emma Smolev; Ryan Lebens; William Leatherwood; John Kennedy; David Komatsu; Edward D. Wang

Poster No. 1059

**Expanding The Scope Of CMS PROMs Mandatory Reporting: Evaluating Medicare THA Outcomes Beyond SCB HOOS Jr**

Ignacio Pasqualini; Alison Klika; Chao Zhang; Michael Bloomfield; Matthew Deren; Alexander Roth; Anabelle Visperas; Viktor Krebs; Nicolas S Piuze



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-070 Clinical Research - Clinical Research Methods**

Poster No. 1060

**Can Machine Learning Algorithms Predict Delirium Risk In Elderly Patients Undergoing Total Hip Arthroplasty?**

MohammadAmin RezazadehSaatlou; Pengwei Xiao; Michelle R. Shimizu; Marium Raza; Sina Afzal; Zhijun Li; Oh-Jak Kwon; Anisha Gemmy; William T. Sampson; Isaiah Freeman; Anirudh Buddhiraju; Young-Min Kwon; Tony Lin-Wei Chen

Poster No. 1061

**Repair Of Medial Meniscus Ramp Lesion May Restore Knee Stability In Anterior Cruciate Ligament Reconstruction ; Quantitative Evaluation Using An Electromagnetic Measurement System**

Shin Yoshida; Kanto Nagai; Yuta Nakanishi; Takeo Tokura; Yuichi Hoshino; Tetsuya Yamamoto; Kyohei Nishida; Kanzaki Noriyuki; Takehiko Matsushita; Ryosuke Kuroda

Poster No. 1062

**Increased Posterior Tibial Slope After Open Wedge High Tibial Osteotomy (owhto) Has A Negative Effect On Postoperative Cartilage Repair**

Keisuke Matsukura; Satomi Abe; Yohei Maeda; Hiroshi Ito

Poster No. 1063

**The Use Of Cluster Analysis To Assess Risk Of Surgical Failure For Total Knee Replacement Patients**

Jake Littman; Janine Molino; Jon Olansen; Valentin Antoci; Roy Aaron

Poster No. 1064

**Reachable Workspace (RWS) Provides A Sex And Psychological State-independent Measure Of Upper Extremity Function**

Saman Andalib; Maya Hatch; Luigi Gonzales; Amanda Tedesco; Tyler Johnston; David wright; Oswald Steward; Ranjan Gupta

Poster No. 1065

**Evaluating The Use Of Perioperative Data To Risk Stratify Postoperative Venous Thromboembolism In Orthopaedic Surgical Patients**

Christina M. Moawad; Samuel Zverev; James Capozzi



## LIST OF POSTERS

---

Poster No. 1066

**Continuity Of Care Counts: Patient Satisfaction In Advanced Practice Clinician Fracture Clinics**

Emi Schwab; Shanika De Silva; Kristin Livingston

Poster No. 1067

**Analysis Of Orthopedic Article Processing Charges In The United States**

Allyson N. Pfeil; Walter Smith; Joshua H. Taylor; Corey Hryc; T. Bradley Edwards





## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-071 Clinical Research - Health Equity**

Poster No. 1068

**Beneficiary And Hospital Characteristics Of Total Hip Or Knee Arthroplasty Procedures For Persons With A Disability Enrolled In Traditional Medicare**

Brocha Z. Stern; Uma Balachandran; Brett L. Hayden; Calin S. Moucha

Poster No. 1069

**Pre-surgical Evaluation By A Health Behavior Psychologist Can Effectively Delineate Patient-specific Barriers To Post-operative Recovery After Osteochondral Allograft Transplantation**

Kylee Rucinski; Renee Stucky; Felicia Jones; James Stannard; Clayton Nuelle; James Cook

Poster No. 1070

**Patients With Lower Preoperative Education Level Experience Worse Long-term Outcomes After Hip Arthroscopy**

Jeffrey S. Mun; Srish S. Chenna; Brandon J. Allen; Rachel L. Poutre; Stephen M. Gillinov; Bilal S. Siddiq; Nathan J. Cherian; Christopher T. Eberlin; Jonathan S. Lee; Scott D. Martin

Poster No. 1071

**National Study Of Social Deprivation And Outcomes After Total Shoulder Arthroplasty**

Kareem S. Mohamed; Christoph A. Schroen; Grace Van Hyfte; Brocha Z. Stern; Eric D. Haunschild; William A. Ranson; PAUL J. CAGLE

Poster No. 1072

**Income And Insurance-based Disparities In Primary Soft Tissue Sarcoma Of The Extremities**

Charlotte F. Wahle; Sara Sakowitz; Nicole J. Newman-Hung; Nicholas M. Bernthal; Peyman Benharash; Lauren E. Wessel

Poster No. 1073

**The Impact Of Housing Status On Closed Tibial Fractures: An Analysis Of The National Trauma Data Bank**

Eujung G. Park; John J. Beckerle; Alexxa Wirth; Kory Johnson; Natasha Keric

Poster No. 1074

**Impact of Social Determinants of Health on Time to Surgery Following Cubital Tunnel Syndrome**



## LIST OF POSTERS

---

Campbell Dopke; Eric Cui; Daniel Raftis; Ariel M. Kesick; Amy Zhao; Alex Gu; Sam Moghtaderi

Poster No. 1074A

**Delays In Insurance Authorization For Post-Acute Care Following Total Hip And Total Knee Arthroplasty**

Rebecca Landau; Hannah Mosher; Rachel Rumana; Aaron Cohen; Gilberto Lobaton; Michele D'Apuzzo; Victor H. Hernandez

Poster No. 1075

**Assessing The Relationship Between Spanish Language And Postoperative Outcomes In Elderly Hip Fracture Patients**

Mohammed Bashier; Jessica Chao; Brandon Wang; Margaret Fagan; Megan Darrell; Dylan Horan; Leila Mehraban Alvandi; Wanda Horn; Mani D. Kahn

Poster No. 1076

**Postoperative Health Care Utilization And Complications After Elective Inpatient Total Hip And Total Knee Arthroplasty In Traditional Medicare Beneficiaries With A Disability**

Brocha Z. Stern; Uma Balachandran; Brett L. Hayden; Calin S. Moucha

Poster No. 1077

**Serious Psychological Distress By Arthritis Diagnosis, Immigration Status, And Race/ethnicity Among US Adults**

Dagmawi Shimeles

Poster No. 1078

**Do The Skin Colors Depicted In Orthopaedic Literature Reflect The Population?**

Dremarcus Ferrell; Walter Klyce; Raymond Liu

Poster No. 1079

**Insurance Type Affects Access To Care For Patients With Hip Labrum Tears**

Clay A. Rahaman; Nathaniel Buchanan; Jackson Byrd; Mathew Hargreaves; Maxwell Harrell; Dev Dayal; Thomas Evely; Eugene W. Brabston; Amit M. Momaya; Aaron Casp

Poster No. 1080

**Lower Income Predicts Lumbar Spine Osteopenia And Osteoporosis: A UK Biobank Study**

Rana A. Ahmad; Mary Bucklin; John Martin

Poster No. 1081



## LIST OF POSTERS

---

**Does The Type Of Preoperative Patient Teaching Lead To Better Outcomes In Knee Arthroplasty Patients?**

Paul Mercado; Joe Kocan; Mary Bayers-Thering; Brian McGrath; Sridhar Rachala; Mohammad Haider; Matthew Phillips

Poster No. 1082

**Social Determinants Predict Low Back And Neck Pain Prevalence In Chicago**

Ashrith Alavilli; Scott Simmons; John Martin

Poster No. 1083

**Who's On First: What Factors Affect Time To Operating Room In Pediatric Femur Shaft Fractures?**

Emi Schwab; Shanika De Silva; Kristin Livingston

Poster No. 1084

**Racial Disparities In Immediate Postoperative Outcomes After Cervical And Lumbar Spine Surgery**

Rohit Siddabattula; George Thomas; Urska Cvek; Ankit Patel; Marjan Trutschl; Houssam Bouloussa



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-072 Clinical Research - Observational Studies**

Poster No. 1085

**Associations Between Area Of Deprivation Index And Outcomes Of Return To Practice And Return To Sport Following Aclr Surgery**

Chelsea Harrison; Kylee Rucinski; Laura Korte; Gillian Hark; Shen-Ying (Richard) Ma

Poster No. 1086

**Accelerated Return To Play Following Open Reduction Internal Fixation Of Adolescent Clavicle Fractures**

Nathan Varady; Ruth Jones; Peter Fabricant

Poster No. 1087

**Investigating Daylight Hours And Hip Fracture Frequency In Southern California**

Akeem Williams

Poster No. 1088

**30-day Readmission After Total Hip And Knee Arthroplasty In Patients With Systemic Lupus Erythematosus: US Nationwide Data**

Omkar S. Anaspure; Michael L. Parks; Susan B. Goodman; Bella Mehta

Poster No. 1089

**Changes In The Weight Bearing Line After Total Ankle Arthroplasty For Osteoarthritis Of The Ankle**

Ryo Okada; Noriyuki Kanzaki; Tetsuya Yamamoto; Yuta Nakanishi; Kyohei Nishida; Kanto Nagai; Yuichi Hoshino; Takehiko Matsushita; Ryosuke Kuroda

Poster No. 1090

**Evaluation Of The Efficacy Of MUA Combined With Ultrasound-guided Prp Injection For Rotator Cuff Injury With Shoulder Stiffness**

Shiyi Yao; Luqi Yang; Lei Wang

Poster No. 1091

**Geriatric Nutritional Risk Index Can Predict 90-day Mortality In Patients With Osteoporotic Vertebral Fractures**

Toshihiko Ito; Hitoshi Ikegami

As of 2.5.2025



## LIST OF POSTERS

Poster No. 1092

**Component Rotational Mismatch In The Standing Position Is A Potential Risk Factor For Unfavorable Functional Outcomes After Total Knee Arthroplasty**

Yasuhiko Kokubu; Shinya Kawahara; Hideki Mizu-uchi; Satoshi Hamai; Yukio Akasaki; Taishi Sato; Yasuharu Nakashima

Poster No. 1093

**Utilization And Costs Of Primary Total Hip And Knee Joint Arthroplasty In Ambulatory Surgical Centers (ASCs): Analysis Of Medicare Part A & B Databases**

Henry Hojoon Seo; Michelle R. Shimizu; Anirudh Buddhiraju; Pengwei Xiao; Zhijun Li; Sina Afzal; Anisha E. Gemmy; Oh-Jak Kwon; MohammadAmin RezazadehSaatlou; William Sampson; Isaiah Freeman; Tony Lin-Wei Chen; Young-Min Kwon

Poster No. 1094

**Early Postoperative Three-phase Technetium-99m Bone Scanning Predicts Traumatic Osteonecrosis In Patients With Femoral Neck Fractures**

Guangmin Yang; Zhe Zhao

Poster No. 1095

**Performance Of Modern Collared And Collarless Stem Designs 10 Years Post-surgery**

David W. Fawley; Sean Croker; Rodrigo Diaz

Poster No. 1096

**What Stem Should I Use To Treat Femoral Neck Fractures? Review Of Stem Design And Cement Use To Treat Femoral Neck Fractures With Primary Total Hip Arthroplasty**

David Fawley; Sean Croker; Rodrigo Diaz

Poster No. 1097

**Sports Concussion Injury And Analysis Of Long-term Mental Health And Dizzy Symptoms**

Kyle Distler

Poster No. 1098

**Rate Of Fusion Using Novel Synthetic Bone Graft Mixed With Allograft Stem Cell Product In Lumbar Fusions**

Samuel A. Bartrom; Micah Smith

Poster No. 1099

**Changes In Value Proposition Of Surgery Vs Office Visits In Orthopaedic Surgery**

Corey Hryc; Ravi Vaswani; Hussein Elkousy; Ian Elliott; Patrick Joyner; Eric Stiefel



## LIST OF POSTERS

Poster No. 1100

**Total Knee Arthroplasty Has A Positive Effect On The Progression Of Arteriosclerosis Over Time :  
Evaluation By The Cardio-ankle Vascular Index**

Yoshinori Ishii; Hideo Noguchi; Junko Sato; Ikuko Takahashi

Poster No. 1101

**Greater Medial Laxity Leads To Inferior Postoperative Clinical Symptoms And Function After Total  
Knee Arthroplasty: A Multi-center Study**

Shuichi Matsuda; Shinichiro Nakamura; Shinichi Kuriyama; Kohei Nishitani; Yugo Morita

Poster No. 1102

**Postoperative Pain After Hip Arthroscopy Is Not Influenced By The Type Of Anesthesia**

Thomas Nau; Uday Ambi; Rashmi Neginhal; Nerissa Naidoo

Poster No. 1103

**Snap-off Screws Support Good Clinical And Radiographic Outcomes Following Weil Osteotomy For  
Metatarsalgia**

Madilyn Riegel; Jillian Mohn; James Jacobs; Hallie Murray

Poster No. 1104

**The Role Of Social Determinants Of Health In Patient Decision-Making For Limb Reconstruction Verse  
Amputation**

Bryce T. Fletcher; Angela Atkinson; Anna Sullentrup; Madeline K. Mueller; Danna Jenkins; Julia AV Nuelle

Poster No. 1105

**The Subjective Hip Value: Validation And Minimum Clinically Important Difference In Primary Total  
Hip Arthroplasty**

Kevin Y. Heo; Andrew Fuqua; Jason A. Shah; Joseph Song; Omar Syed; Emilio Arellano; Emilie C. Collins;  
Jesse Seilern und Aspang; Ajay Premkumar; Jacob M. Wilson

Poster No. 1106

**Hospital Predictors Of Participation In The Bundled Payments For Care Improvement Advanced (BPCI-  
A) Initiative**

Tiana S. Grosskreuz; Caroline Thirukumaran

Poster No. 1107

**Evaluation Of Bony Features Associating With Hip Instability In The Patient With Hip Dysplasia**

Takeshi Shoji; Hideki Shozen; Shinnichi Ueki; Hiroki Kaneta; Hiroyuki Morita; Yousuke Kozuma; Nobuo  
Adachi



## LIST OF POSTERS

---

Poster No. 1108

**Post-operative Pain Management In Orthopedic Patients: United States And Ethiopia**

Johnathan Dallman; Haley Albers; Laura Jackson; Kameron King; Meghan Lemons; Joey Maksound; Abiy Haile; Solomon Mengistu; Archie Heddings

Poster No. 1109

**Impact Of SsrIs On Need For Future Joint Arthroplasty In Osteoarthritis Patients: A Retrospective Cohort Study From The Trinetx Us Collaborative Networks**

Andrew Miner; Gaurav Singh; Parke Hudson



## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-073      Clinical Research - Omics, Biomarkers and Genetics**

Poster No. 1110

**Network Medicine-based Approach To Predict Combinational Benefits Of Multi-modal Rehabilitation Program On Cartilage Health**

Hirota Iijima; Fabrisia Ambrosio

Poster No. 1111

**Integrating Proteomics And Machine Learning To Identify Early Indicators Of Recurrent Bone Stress Injuries**

Genevieve Romanowicz; Kristin Popp; Ethan Dinh; Isabella Harker; Kelly Leguineche; Julie Hughes; Kathryn Ackerman; Mary Bouxsein; Robert Guldberg

Poster No. 1112

**Higher Plasma Levels Of Cartilage Acidic Protein 1 (crtac1) Associate With Worse Knee Cartilage Composition And Lower Knee Adduction Moment In Males With Painful Knee Osteoarthritis**

Ashley A. Williams; Jade He; Sun Hyung Kwon; Daniella Asare; Constance R. Chu





## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-074      Clinical Research - Randomized Studies**

Poster No. 1113

**Orthobiologic Therapy For Chronic Lumbar Disc Disease: Phase 2 Clinical Safety And Feasibility Data of Intradiscal Injections Of Hypoxic Cultured Mesenchymal Stem Cells**

Francisco Silva; Scott Bainbridge; Jason Lipetz

Poster No. 1114

**Virtual Reality In Orthopaedic Education: Efficacy With Femoral Neck Fracture Fixation**

Brett Segobiano; Julia Nascimben; John Alvarez; Nirav Mungalpara; Brett Drake; Apurva Choubey;

Joseph Karam; Mark Gonzalez



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-075 Clinical Research - Systematic Review/Meta-analyses**

Poster No. 1115

**A Systematic Review Of Postoperative Pain Management With Metamizole After Orthopedic Surgery**

Johnathan Dallman; Michael Braman; Collin Freking; Laura Jackson; Archie Heddings

Poster No. 1116

**The Efficacy Of Cefazolin Vs Higher-generation Cephalosporins In Periprosthetic Joint Infection Prevention After Hip And Knee Arthroplasty**

Owen S. Roth; Sanjana Kanumuri; Suhas Dasari; JaeWon Yang; Navin Fernando; Nicholas Hernandez

Poster No. 1117

**Should The Patella Be Resurfaced During Primary Total Knee Arthroplasty? An Updated Meta-analysis And Systematic Review**

Nazanin Kermanshahj; Nicolaas C Budhiparama; Mahmoud Wahab; Claudia Arias; Weihua Xu; H Del Schutte; Gwo-Chin Lee; Javad Parvizi

Poster No. 1118

**Withdrawn**

Poster No. 1119

**Do Younger Patients Truly Fair Better Than Older Patients Following Hip Resurfacing Arthroplasty? A Systematic Review And Meta-analysis.**

Jean Shanaa; Shaheryar Asad; Robert Augustynski; Ethan Bernstein; Guneet S. Bindra

Poster No. 1120

**Surgical Treatments For Scapholunate Ligament Injuries And Development Of Arthritis In The Wrist. A Systematic Review**

Eiden Lami; Jack Kramer; Farid Amirouche

Poster No. 1121

**Postoperative Outcomes Of Anterior Cervical Discectomy And Fusion In The Elderly: A Systematic Review And Meta-analysis**

Shaheryar Asad; Guneet S. Bindra; Jean Shanaa; Kevin Tang; Sarah Lateef; Ferhan Asghar



## LIST OF POSTERS

---

Poster No. 1122

**Withdrawn**

Poster No. 1123

**Withdrawn**

Poster No. 1124

**No Difference In Outcomes, Complications, Or Revision Rate, For Obese Vs. Non-obese Patients Following Hip Resurfacing Arthroplasty: A Systematic Review And Meta-analysis**

Jean Shanaa; Shaheryar Asad; Guneet Bindra; Robert Augustynski; Scott Marwin

Poster No. 1124A

**Timed Up And Go Is A Valid And Valuable Performance Test To Evaluate Outcomes Following Total Knee Arthroplasty**

Pamela A. Chan; Taylor McClennan; Hua Zheng; Robert Hall; David C. Ayers

Poster No. 1125

**Factors Contributing To Achilles Tendon Re-rupture: A Systematic Review**

Abimbola Kolawole

Poster No. 1126

**The Effect Of Nicotine On Bone Healing: A Systematic Review And Application To Total Joint Arthroplasty**

Levi M. Travis; John C. Cacciatore; Maya R. Moore; Jaime Alfredo Schuster-Wasserman; Layal Hneiny; Victor H. Hernandez

Poster No. 1127

**Functional Assessment In Patients Undergoing Total Knee Arthroplasty: A Systematic Review**

Steven G. Persaud; Theofilos Karasavvidis; Richard J. Rivera; Karlos E. Zepeda; Isaiah Selkridge; Eytan Debbi

Poster No. 1128

**Comparison Of Biportal Versus Uniportal Endoscopic Discectomy, Laminectomy, And Fusion For The Treatment Of Lumbar Degenerative Disease: A Systematic Review And Meta-Analysis**

Alexander Yu; Mark Kurapatti; James Hong; Ryan Hoang; Nancy Shrestha; Ryan Stadler; Peter Campbell; Junho Song; Joshua Lee; Samuel Cho

Poster No. 1129

**A Meta-analysis To Interrogate Skeletal Muscle Anabolic Response To Resistance Exercise Protocol**



## LIST OF POSTERS

---

Ikufumi Takahashi; Moeka Yokoyama; Nana Takenaka-Ninagawa; Fabrisia Ambrosio; Hirotaka Iijima

Poster No. 1130

**Rotator Cuff Revision Factors In Effectiveness Of Surgery, And Long-term Functional Outcomes. A Systematic Review (2021-2024)**

Yvon M. Bogdonoff; Farid Amirouche; Jason Koh

Poster No. 1131

**Hip Arthroscopy With Capsular Plication Improves Hip Function, Sports Performance, And Pain In Borderline Hip Dysplasia**

Parshva Sanghvi; Andrew Kim; Nicholas Belt; Jason Ina; Michael Salata

Poster No. 1132

**A Meta-analysis Of The Outcomes Of Syndesmotic Ankle Fractures Treated With Tibiotalocalcaneal Nail, Suture Button, Or Syndesmotic Screw**

Thomas Cho; Helen Yan; Michael Uematsu; Christian Harter; Jiayong Liu



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-076      Hand and Wrist - Biomechanics**

Poster No. 1133

**Assessing Major Osteoporotic Fracture Risk Through Metacarpal Cortical Index In A Human Cadaveric Model**

Anthony J. Yosick; Sophia L. Turbide; Hani Awad

Poster No. 1134

**Anatomy Of The Scaphotrapezial Ligament Complex And Its Implications On Distal Scaphoid Resection**

Yukiko Yoshimura; Atsushi Yokota; Keitaro Fujino; Yoichi Kondo; Masashi Neo; Shuhei Otsuki

Poster No. 1135

**Finite Element Analysis Of Fixation Strength In Kirschner Wire Fixation Of Phalangeal Fractures - Comparison Between Complete And Incomplete Fracture Models**

Yukinori Hayashi; Takashi Ajiki; Hirokazu Inoue; Katsushi Takeshita

Poster No. 1136

**Deciphering Wrist Dynamics: Unraveling The Impact Of Scapholunate Ligament Injuries On Wrist Stability, Kinetics, And Treatment Options In Orthopaedics Practice**

Farid Amirouche; Kim Sunjung; Wedam Nyaaba; Majd Mzeihem; Alfonso Mejia; Mark Gonzalez

Poster No. 1137

**The Influence Of Ligament Injuries On Wrist Contact Pressure Via Monte Carlo And Finite Element Analysis**

Thor E. Andreassen; Taylor P. Trentadue; Andrew R. Thoreson; Kai-Nan An; Sanjeev Kakar; Kristin D. Zhao

Poster No. 1138

**Quantitative Evaluation Of Tendon Gliding In Carpal Tunnel Syndrome Using A Digital Stethoscope**

Daiji Nakabayashi; Atsuyuki Inui; Yutaka Mifune; Kohei Yamaura; Takahiro Furukawa; Tatsuo Kato; Shuya Tanaka; Masaya Kusunose; Yutaka Ehara; Shunsaku Takigami; Shin Osawa; Ryosuke Kuroda

Poster No. 1139

**Ultrasound Shear Wave Speed Of The Transverse Carpal Ligament During Pinching**

David Jordan; John Elfar; Kent Kwoh; Zong-Ming Li



## LIST OF POSTERS

---

Poster No. 1140

**Thumb Motion Is Not The Same As First Carpometacarpal Joint Motion**

J J Trey Crisco; Amy Morton; Douglas Moore

Poster No. 1141

**Association Between Carpal Bone Quality And Carpal Screw Fixation**

Christopher N. Benoit; Mark A. Miller; Megan E. Oest; Jodi N. Dowthwaite; Frederick W. Werner; Kevin M. Albanese

Poster No. 1142

**How To Accurately Measure Side Pinch Strength?**

Konosuke Yamaguchi; Kunihiko Oka; Shun Miyamoto; Yoshiaki Yamada; Kentaro Ono; Akinobu Kawada; Yoshio Kajji; Masakazu Ishikawa



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-077      Hand and Wrist - Imaging**

Poster No. 1143

**Improvement In Range Of Motion After Removal Of The Palmar Locking Plate For Distal Radius Fractures**

Yoshiaki Yamada; Konosuke Yamaguchi; Kunihiko Oka; Shun Miyamoto; Akinobu Kawada; Sachiko Tobiume; Yoshio Kaji; Masakazu Ishikawa

Poster No. 1144

**Intraoperative Second Harmonic Generation Imaging Detects Damage Linked To Long-term Dysfunction And Neuroma-formation In Rat Median Nerves**

Christoph A. Schroen; Philip Nasser; PAUL J. CAGLE; Michael R. Hausman

Poster No. 1145

**A Novel Approach For Three-dimensional Evaluation Of Reduction Morphology In Distal Radius Fracture**

Yuichi Yoshii; Reo Asai; Yusuke Eda; Tooru Uchida; Akira Ikumi; Tomoo Ishii

Poster No. 1146

**A Novel Method To Represent The Three-dimensional Inclination Of The Distal Radius Joint Surface**

Yuichi Yoshii; Yusuke Eda; Reo Asai; Tooru Uchida; Akira Ikumi; Tomoo Ishii



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-078      Hand and Wrist - Surgical and Therapeutic Innovation**

Poster No. 1147

**Bending And Torsional Stability Of A New Intramedullary Implant For Phalangeal Fractures**

Larry W. Ehmke; Michael A. Zwolinski; Marcus Mohr

Poster No. 1148

**Glp-1 Receptor Agonist Therapy Is Associated With Fewer Medical Complications After Carpal Tunnel Release In Diabetic Patients**

Annika Hiredesai; Carina P. Howlett; Sara Kisiel; Krishna Unadkat; Jens T. Verhey; Kevin J. Renfree; Shelley Noland

Poster No. 1149

**Guidewire Geometry And How It Relates To Targeting Accuracy**

Michael A. Zwolinski; Larry W. Ehmke; Marcus Mohr

Poster No. 1150

**Decreasing Trend In Medicare Physician Reimbursements For Flap And Microvascular Surgery Procedures From 2002 To 2023**

Paul G. Mastrokostas; Aaron B. Lavi; Leonidas E. Mastrokostas; Scott Liu; Katherine M. Connors; Jennifer Hashem

Poster No. 1151

**The Effects Of Cryotherapy In Hand And Wrist Surgery: A Single Institution Randomized Control Trial**

Charles K. Marik; Matthew Henn; Omar Nazir; Adam Mirarchi

Poster No. 1152

**Trans-ulnar Single Incision Fasciotomy For Decompression Of Forearm Compartment Syndrome: A Cadaveric Study**

Summer M. Drees; Cade R. McGarvey; Martin Skie; Ahmed Suparno Bahar Moni

Poster No. 1153

**A Novel Surgical Technique For Correcting Distal Radius Fractures With Radial Length And Translation Deformities**

Vincent Lee

As of 2.5.2025





## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-079      Hand and Wrist - Tendon, Ligament and Neuromuscular Disorders**

Poster No. 1154

**Inflammasome And Complement Pathways Are Initiated At Early Time Points After Mouse Sciatic Nerve Transection**

Kiersten E. Red; Candace Mason; Carmelina Azar; Elisabeth Orozco; Reid A. Abrams; Sameer Shah

Poster No. 1155

**Glp-1 Receptor Agonist Therapy Is Associated With Fewer Diagnoses Of Carpal Tunnel Syndrome Within Two Years Of Treatment Initiation**

Annika N. Hiredesai; Alejandro Holle; Carina P. Howlett; Joyce Zhuang; Cara Lai; Kevin J. Renfree; Shelley Noland

Poster No. 1156

**The Neuroclasis Classification Of Nerve Injuries: Neuroma-In-Continuity Due To Partial Mechanical Failure In The Rat Median Nerve**

Christopher A. Schroen; Damien Laudier; Philip Nasser; PAUL J. CAGLE; Michael R. Hausman

Poster No. 1157

**Idiopathic Carpal Tunnel Syndrome Is Not A Single Pathological Condition: A Study Focusing On Amyloid Deposition In The Carpal Tunnel Synovium**

Yoshiaki Yamanaka; Takafumi Tajima; Yoshitaka Tsujimura; Toichiro Naito; Naohito Sato; Akinori Sakai



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-080      Shoulder and Elbow- Arthroplasty**

Poster No. 1158

**Current Comorbidity Indices Inadequately Identify Patients Who Experience Poor Outcomes Following Total Shoulder Arthroplasty**

Alexander R. Zhu; Eve R. Glenn; Laurence Okeke; Edward G. McFarland

Poster No. 1159

**Osteoarthritis Prior To Reverse Total Shoulder Arthroplasty Is Associated With Increased Incident Joint Pain And Certain Mental Health Conditions**

Alexander R. Zhu; Eve R. Glenn; James H. Padley; Henry Fox; Edward G. McFarland

Poster No. 1159A

**Preoperative Weight Loss Before Total Shoulder Arthroplasty Does Not Impact Postoperative Outcomes**

Alexander R. Zhu; Eve R. Glenn; Henry Fox; James H. Padley; Edward G. McFarland

Poster No. 1160

**Occupational Therapy And Comorbidities: Predictors Of 90-day Readmission After Total Shoulder Arthroplasty**

Andrew Burcke; Amber Stefanski; Vinieth Bijanki; Heidi Israel; Scott G. Kaar

Poster No. 1161

**Interposition Arthroplasty Of The Elbow For Post-traumatic Injury Patients**

Nicole Greene; Ujjawal Savani; Joseph Monir; Sameer Khawaja; Eric Wagner; Michael Gottschalk

Poster No. 1162

**The Association Of Annual Hospital Volume And Patient Medical Complexity On Length Of Stay, Complications, And Readmission Rate After Tsa, Rtsa, And Revision Tsa**

Dylan N. Greif; Gabriel Ramirez; Patrick Castle; Caroline Thirukumaran; Ilya Voloshin; Sandeep Mannava

Poster No. 1163

**Assessment Of Changes In Emg Based Muscular Activity And Kinematics Of The Shoulder Joint After Reverse And Anatomic Total Shoulder Arthroplasty**

Rabeeh Majidi; Andrew Jawa; Adam Bowler; Evan Glass; Vahid Entezari; Ali Kiapour

As of 2.5.2025



## LIST OF POSTERS

Poster No. 1164

**Biomechanical Assessment Of Simple Wedge And Biplane Grafts In Reverse Total Shoulder Arthroplasty: Assessing Stability Compared To Non-defect And Untreated Defect Models**

Delaney MacIntosh; Mostafa Mohamed; Haoyang Li; Ahmad Altawari; Martin Bouliane; Lindsey Westover; Gail M. Thornton

Poster No. 1165

**Preoperative Malnutrition: A Recipe For Complications Following Shoulder Arthroplasty**

Harshavardhan Bollepalli

Poster No. 1166

**A Multiplanar Humeral Head Osteotomy Results In Significantly Improved Bone Compression Strength Compared To A Standard Humeral Head Osteotomy In Stemless Total Shoulder Arthroplasty**

Victoria R. Wong; Andrew J. Frear; Meagan J. Makarczyk; Michael F. Shannon; Kenneth L. Urish; Matthew D. Budge

Poster No. 1167

**10 Year Revision Outcomes Following Total Shoulder Arthroplasty From Osteoarthritis Versus Proximal Humerus Fractures**

Eric Cui; Daniel Rafitis; Amy Zhao; Rachel Ranson; Zoe Norris; Jacob Mikula; Zachary Zimmer; Uma Srikumaran

Poster No. 1168

**The Effect Of Geometric Design On Initial Stability Of Stemless Shoulder Implants**

Kyle Snethen; Christine Mueri; Yang Son; Ray Parisi; Thomas Duquin

Poster No. 1169

**Return To Swimming After Shoulder Arthroplasty: Performance And Outcome Scores**

Albert D. Mousad; Daniel F. Schodlbauer; Justin Xie; Casey M. Beleckas; Jonathan C. Levy

Poster No. 1170

**Impact Of Small Stature On Reverse Shoulder Arthroplasty Outcomes In Women: A Matched Cohort Analysis**

Albert D. Mousad; Gagan Grewal; Casey M. Beleckas; Daniel F. Schodlbauer; Jonathan C. Levy

Poster No. 1171

**Effects Of The Bone Density And Augmentation On Primary Glenoid Baseplate Stability In Reverse Shoulder Arthroplasty.**

Daniel Ritter; Patric Raiss; Coen Wijdicks; Samuel Bachmaier



## LIST OF POSTERS

Poster No. 1172

**Validation Of A Volumetric Humeral Canal Fill Ratio And Effects On Primary Stability And Cortical Bone Loading In Short And Standard Stem Reverse Shoulder Arthroplasty**

Daniel Ritter; Patric Raiss; Coen Wijdicks; Samuel Bachmaier

Poster No. 1173

**Trends In Outpatient Total Shoulder Arthroplasty Volume Before And After Regulatory Changes: A 10-Year Analysis**

Emma Smolev; Kenny Ling; Elizabeth Wang; Frederick Hance; David Komatsu; Edward D. Wang

Poster No. 1174

**Influence Of Process Conditions On The Fatigue Performance Of An Additively Manufactured Stemless Shoulder Implant**

Sony Manandhar; Yang Son; Christine Mueri; Kimberly Mimnaugh; Jeff Bischoff

Poster No. 1175

**Characterization Of The Asymmetric Bone Envelope Of The Proximal Humeral Metaphysis For Stemless Shoulder Implants**

Christine Mueri; Kyle Snethen; Raymond Parisi; Yang Son; Thomas Duquin

Poster No. 1176

**Association Of Insulin Dependence On Complications Following Total Shoulder Arthroplasty In Patients With Diabetes Mellitus**

Eve R. Glenn; Alexander R. Zhu; James H. Padley; Henry Fox; Laurence Okeke; Edward G. McFarland

Poster No. 1177

**Opioid Prescriptions Following Total Shoulder Arthroplasty Is Associated With New Persistent Opioid Use: A Retrospective Cohort Study**

Eve R. Glenn; Alexander R. Zhu; Henry Fox; James H. Padley; Laurence Okeke; Edward G. McFarland

Poster No. 1178

**The 22-modifier In Shoulder Surgery: A Comprehensive Analysis**

Allyson Pfeil; Walter Smith; Matthew A. Coker; Corey Hryc; T Bradley Edwards; Michael Cusick

Poster No. 1179

**Identification Of Risk Factors For Component Changes In 3D CT Pre-Operatively Planned RTSA Patients**

Bradley A. Weaver; Mehmet Kilinc; Darren Hackley; Burks Garrett; Alicia Lozano; Cesar Bravo; Michael O'Malley; Ian Dempsey



## LIST OF POSTERS

---

Poster No. 1180

**Comprehensive Methodology For Identifying Clinically Relevant Worst-case Conditions For Fretting Corrosion In The Modular Junction Of Stemless TSA**

Sony Manandhar; Yang Son; Christine Mueri; Kimberly Mimnaugh; Jeff Bischoff

Poster No. 1181

**Evaluating Long-term Outcomes Of The Latarjet Procedure**

Allyson N. Pfeil; Walter Smith; Matthew Coker; Ross Doehrmann; Alexandra Mathews; Derek Fukuda; Corey Hryc; Hussein Elkousy; T Bradley Edwards



## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-081      Shoulder and Elbow - Diagnostics**

Poster No. 1182

**Monopolar Versus Bipolar Intraoperative Nerve Stimulation As An Assessment Of Function And Recovery In Damaged Rat Median Nerves**

Christoph A. Schroen; Pierce J. Ferriter; Michael R. Hausman; PAUL J. CAGLE

Poster No. 1183

**3D Validation Of The Horizontal Displacement Angle And Vertical Displacement Angle Using Computed Tomography**

Austin F. Smith; Estelle Wigmore; William Paterson; Ben Kenny

Poster No. 1184

**Visibility Of The Elbow Arthroscopy By Nanoscope™: A Cadaveric Study**

Sho Yamauchi; Tetsuya Takenaga; Atsushi Tsuchiya; Keishi Takaba; Jumpei Inoue; Tomoya Ono; Hideki Murakami; Masahito Yoshida; Satoshi Takeuchi



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 12:00 PM

Room #: North Hall A-C

**PS1-082      Shoulder and Elbow - Injury and Healing**

Poster No. 1185

**Does Angiogenesis Following Arthroscopic Superior Capsule Reconstruction Using A Fascia Lata Autograft Result From Graft Healing Or Pain-related Inflammation? A Longitudinal Study Using Power Doppler Sonography**

Akihiro Uchida; Akihiko Hasegawa; Yusuke Noguchi; Shuhei Otsuki; Teruhisa Mihata

Poster No. 1186

**Central Axis Pin Length And Construct Stability For The Internal Joint Stabilizer Of The Elbow: A Biomechanical Analysis**

Anthony P. Trenga; Connor W. Sullivan; Linda M. McGrady; Alexander R. Graf; Mei Wang

Poster No. 1187

**A Meta-analysis Of The Outcomes For Subacromial Bursitis Treated With Physical Therapy, Corticosteroid Injection, Or A Combination Of Both**

Patrick Meyers; Thomas Cho; Jiayong Liu

Poster No. 1188

**Locked Posterior Dislocation Of The Shoulder: A Systematic Review And Meta-analysis Update**

Katelyn Cole; Sabrina Pescatore

Poster No. 1189

**A Systematic Review Of Surgical Outcomes Of Ulnar Collateral Ligament Rupture Treated With Various Techniques**

Benjamin Nagy; Jiayong Liu

Poster No. 1190

**Fully-automatic Probe Scanning Guide For Segmenting Rotator Cuff Tear Using Ultrasound Images**

Kyungsu Lee; Moon Hwan Lee; Seo-Yeon Choi; Hyung Bin Park; Jae Youn Hwang; Jun-Young Kim

Poster No. 1191

**Multi-dimensional Rotator Cuff Segmentation Using Entropy-based Convolution In Mri**

Kyungsu Lee; Moon Hwan Lee; Seo-Yeon Choi; Hyung Bin Park; Jae Youn Hwang; Jun-Young Kim



## LIST OF POSTERS

---

Poster No. 1192

**Risk Factors For Unplanned Reoperation After Open Fractures Of The Supracondylar Distal Humerus**

Zachary C. Wilhelm; Peter Mittwede; Raymond Pensy

Poster No. 1193

**Pediatric Upper Extremity Compartment Syndrome: An Analysis Of Inpatient Outcomes**

Victor Koltenyuk; Matthew Merckling; Oserekpamen F. Omobhude; Ethan Parisier; Jared S. Sasaki; Kyra Leonard; Ian Jarin; Harshadkumar Patel

Poster No. 1194

**Proximal Humerus Fractures: An E-delphi Method To Reach Consensus On Features Critical For Clinical-decision Making**

Sarah B. Floyd; Maria Cordero Romero; Kyle Jeray; Michael Kissenberth; Charles Daly; Stephan Pill

Poster No. 1195

**Mechanomyography As An Objective Tool For Assessing Muscle Fatigue In Forearm Flexor Muscles**

Shin Osawa; Atsuyuki Inui; Yutaka Mifune; Kohei Yamaura; Takahiro Furukawa; Tatsuo Kato; Shuya Tanaka; Masaya Kusunose; Yutaka Ehara; Shunsaku Takigami; Daiji Nakabayashi; Ryosuke Kuroda





## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-083      Shoulder and Elbow - Structure, Function and Mechanics**

Poster No. 1196

**Temporal Bone Volume Changes In The Humeral Head Subchondral Bone In A Rat Rotator Cuff Tear Arthropathy Model**

Takayuki Ide; Tomohiro Iuchi; Hiroki Tawaratsumida; Yusuke Masuda; Shingo Maesako; Toshiro Ijuin; Shingo Maeda; Noboru Taniguchi

Poster No. 1197

**Innovative Approach To Rotator Cuff Assessment: Introducing The Muscle Efficiency Index And Its Role In Injury Analysis And Shoulder Biomechanics**

Farid Amirouche; Majd Mzeihem; Bassem Elhassan; Jason Koh

Poster No. 1198

**Quantification Of Elbow Flexion In Overhead Throwing Motion: A Pilot Motion Capture Study On Non-professional Baseball Players**

Anton Pelto; Shane Barton; Giovanni Solitro

Poster No. 1199

**Altered Supraspinatus Muscle Stiffness Following Shoulder Exercises Among Individuals With Rotator Cuff Tears**

Yen-Sheng Lin; Andrew Nasr; Henry Wang

Poster No. 1200

**Contralateral Rotator Cuff Repair Yields Similar Function And Patient Reported Outcomes**

Fritz Steuer; Sophia McMahon; Ryan Lin; Matthew Como; Asher Mirvish; Albert Lin

Poster No. 1201

**The Effect Of Concavity Restoration On Glenohumeral Stability In A Glenoid Bone Loss Model: Comparing Distal Tibia Allograft Vs. Medial Tibial Plateau Allograft Vs. Distal Clavicle Autograft**

Amirhossein Jahandar; Andreas Kontaxis; Antonio cusanoa25; Benjamin Basseri; Lawrence Gulotta; David Dines; Joshua Dines; Michael Fu; Theodore Blaine; Samuel Taylor

Poster No. 1202

**Which Dorsal Scapular Muscle Affects Shoulder Range Of Motion?**



## LIST OF POSTERS

---

Hiroki Miyamoto; Takayuki Muraki; Naoya Iida; Atsushi Teramoto; Kota Watanabe

Poster No. 1203

**Varus Malunion Of Proximal Humerus Fracture Alters Glenohumeral Joint Kinematics**

Mike Z. Kuhn; Andrew Sudar; Clarissa LeVasseur; Stephen Chen; Gele Moloney; William Anderst

Poster No. 1204

**Enhancing Shoulder Biomechanics Analysis: The Application Of Phase Space Dynamics In The Fit-hansa Test**

Joy C. MacDermid; Arman Hosseni; Emily Lalone; Stephen Czarnuch



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-084      Shoulder and Elbow - Surgical and Non-Surgical Interventions**

Poster No. 1205

**No Influence Of Biceps Sheath Fluid On Patient-reported Outcome In Individuals With Symptomatic Isolated Supraspinatus Tendon Tears**

Jumpei Inoue; Luke T. Mattar; Efstathios Konstantinou; Adam J. Popchak; Volker Musahl; James J. Irrgang; Richard E. Debski

Poster No. 1206

**Clinical Outcomes Of Glenoid Labral Articular Disruption (GLAD) Lesions In The Setting Of First-time Anterior Shoulder Instability Events**

Jenna L. Dvorsky; Ryan Lin; Confidence Njoku-Austin; Zachary Herman; Rajiv Reddy; Ehab Nazzal; Logan E. Finger; Elizabeth O. Clayton; Matthew Como; Fritz Steuer; Emily Lau; Albert Lin

Poster No. 1207

**Comparative Evaluation Of A Two-incision Minimally Invasive Approach And Open Surgery For Ulnar Nerve Release In Cubital Tunnel Syndrome (cuts): Patient-reported Outcomes Analysis**

Sanders Salomon; Daniyal Mehmood; Seth Roge; Apurva Choubey; Brett Drake; Nirav Mungalpara; Mark Gonzalez

Poster No. 1208

**Impact Of Routine Upright Clavicle Radiographs On Vertical Displacement And Treatment Of Clavicle Fractures**

Joshua Ungar; Andrew Burcke; Sahand Fallahi; Thomas Revak

Poster No. 1209

**The Cost Of Last-minute Cancellation: Analysis Of Timing, Reason, And The Block Time You Won't Get Back**

Sophia McMahon; Fritz Steuer; Gillian Ahrendt; Stephen Marcaccio; Linda Park; Ariana Lott; Matthew Como; Albert Lin

Poster No. 1210

**Adding Both Suture Retensioning And A Posteroinferior Anchor To Bankart Repair Significantly Improves Repair Biomechanics After Cyclic Loading**



## LIST OF POSTERS

Justin FM Hollenbeck; Maximilian Hinz; Bradley M. Kruckeberg; Sidrak P. Jason; Natalie Cortes; Wyatt H. Buchalter; Matthew T. Provencher; Peter J. Millett

Poster No. 1211

**Biomechanical Evaluation And Intraoperative Strategies For Addressing Suture Anchor Failure In Osteoporotic Bone**

Richard M. Marchese; Samir A. Baig; Sofia Hidalgo Perea; Jaclyn Brunner; David E. Komatsu; Edward D. Wang

Poster No. 1212

**In Vivo Glenohumeral Kinematics And Patient Reported Outcomes Improve At 5 Year-Follow-up In Individuals With Symptomatic Isolated Supraspinatus Tears Compared To Before And After Exercise Therapy**

Lidya Canturk

Poster No. 1213

**Maintenance Of In Vivo Glenohumeral Arthrokinematics At 5 Year-follow-up After Exercise Therapy In Individuals With A Symptomatic Isolated Supraspinatus Tear**

Lidya Canturk

Poster No. 1214

**The Relationship Between Patient Demographics, Anatomic Humeral Measurements, And Placement Of A Locking Plate That Achieves Recommended Screw Fixation In The Treatment Of Proximal Humerus Fractures**

Hyeongmin Kim; Josie Elwell; Nicole Mohajer; Roger Arnold; Matthew Hamilton; Christopher Roche



## LIST OF POSTERS

### Saturday, February 8, 2025

10:00 AM - 7:30 PM

Room #: North Hall A-C

#### **PS1-085      Skeletal Muscle - Diseases and Disorders**

Poster No. 1215

##### **STAC3 Disorder: Characterizing The Musculoskeletal Phenotype**

Nathaniel C. Adams; Zach Visco; Malvika Choudhari; James Sanders; Stuart Mitchell

Poster No. 1216

##### **Characterization Of Quadriceps Muscle Injuries In National Basketball Association Athletes And Effects On Player Performance Following Injury**

Romir P. Parmar; Sailesh V. Tummala; Landon Morikawa; Skye Buckner-Petty; Anikar Chhabra

Poster No. 1217

##### **Hip Joint Reaction Force And Posture During Gait In Patients With Unilateral Hip Osteoarthritis**

Koki Ouchi; Koji Totoribe; Go Yamako; Gang Deng; Etsuo Chosa

Poster No. 1218

##### **Pathophysiological Recapitulation Of Sarcopenia Induced By Chronic Circadian Misalignment In Mouse**

Takashi Seya; Naoki Okubo; Nobuya Koike; Yoshiki Tsuchiya; Akira Sugimoto; Yasuhiro Umemura; Kenji Takahashi; Kazuhiro Yagita

Poster No. 1219

##### **Skeletal Muscles From Chronic Stroke Patients Are Fibrotic With Decreased Myogenic Potential**

Rajeswari Pichika; Olga Politikou<sup>2</sup>; Andrea (Andy) Domenighetti; Oskar Aszman; Richard Lieber

Poster No. 1220

##### **Quantitative Reflex Tests Using A Novel Acoustic-based Sensing System**

amirhossein Yazdkhasti; Ruth Berkun; Rachel Reyes Segura; Keyu Wan; Joseph Schwab; Hamid Ghaednia



## LIST OF POSTERS

### Saturday, February 8, 2025

10:00 AM - 7:30 PM

Room #: North Hall A-C

#### **PS1-086      Skeletal Muscle - Exercise and Rehabilitation**

Poster No. 1221

##### **Characterization Of Neuromuscular Regeneration Following Chronic Vml In Middle-aged Mice**

Eszter Mihaly; Shaquille Dias; Chris W. Ward; Allison Horenberg; Dallas Altamirano; Warren Grayson

Poster No. 1222

##### **Muscle Overuse Induces Intramuscular Fibrotic Changes Accompanied By Proliferation Of Fibro-adipogenic Progenitor Cells Without Myofiber Damage.**

Hiroyori Fusagawa; Atsushi Teramoto; Xuhui Liu; Brian Feeley

Poster No. 1223

##### **Associations Between Shoe Brands And Lower Extremity Injury Rate Among Nba Players: A Retrospective Cohort Study Of The 2023-2024 Season**

Ethan Mickelson; Ankit Choudhury; Madelyn Anderson; Janelle A. Cross

Poster No. 1224

##### **Association Between Shoe Brand And Lower Extremity Injury In The Wnba: A Retrospective Cohort Study Of The 2023 Season**

Madelyn R. Anderson; Ankit Choudhury; Ethan Mickelson; Janelle Cross

Poster No. 1225

##### **Real-time Musical Feedback Supports Shifts In Center Of Pressure Without Decreasing Cadence And Speed**

Luisa Cedin; Camilla Antognini; Christopher Knowlton; Markus Wimmer



## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-087      Skeletal Muscle - Growth, Development and Aging**

Poster No. 1226

**Neuromuscular Junction Decline In Aging C57bl/6j Mice Model: Insights Into Sarcopenia Progression**

Senlin Chai; Ning Zhang; Can Cui; Ronald Man Yeung Wong; Sheung Wai Law; Wing-Hoi Cheung

Poster No. 1227

**Plasma 25-hydroxyvitamin D Association With Physical Performance And Muscle Mass: A Prospective Cohort Study**

Justin Wu; Masa Teraguchi; Daisuke Fukui; Koichi Masuda; Yusuke Kido; Takahide Sasaki; Makiko Onishi; Miyai Nubuyuki; Kanae Mure; Hiroshi Hashizume; Hiroshi Yamada



## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-088      Skeletal Muscle - Imaging, Treatment and Clinical Outcomes**

Poster No. 1228

**Echo Intensity And Texture Analysis In Vastus Medialis: Complementary Predictors Of Early Knee Osteoarthritis**

Atsushi Hoki; Ella D'Amico; Fabrisia Ambrosio; Tsubasa Iwasaki; Yoshikazu Matsuda; Hirotaka Iijima

Poster No. 1229

**Left-Right Discrepancy Of Elasticity In Spinal Muscles: An Ultrasound Shear Wave Elastography Study In Young Adults**

Koichi Shimabukuro; Yusuke Aoki; Maiko Yasumizu; Takanao Shimabukuro; Hideo Kinjo; Yoshimaro Miyahira; Kotaro Nishida

Poster No. 1230

**Evaluation Of A Method To Detect Loss Of Whole-body Muscle Mass From Lower Extremity CT Images**

Sotaro Kono; Keisuke Uemura; Soufi Mazen; Ryosuke Nishimura; Ryo Higuchi; Hirokazu Mae; Kazuma Takashima; Yoshito Otake; Yoshinobu Sato; Masaki Takao; Nobuhiko Sugano; Seiji Okada; Hidetoshi Hamada

Poster No. 1231

**Shear Wave Elastography Of Healthy Individual Thenar Muscles During Pinching**

Mary Henderson; Zong-Ming Li





## LIST OF POSTERS

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-089      Skeletal Muscle - Injury and Healing**

Poster No. 1232

**Local Biomaterial Delivery Of Exogenous Specialized Pro-resolving Lipid Mediators Improves Functional Outcomes After Volumetric Muscle Loss**

Frank S. Pittman

Poster No. 1233

**Gsk3 $\beta$  Inhibitor Eluting Scaffolds For Reducing Fatty Infiltration In Rotator Cuff Repair**

Doga Oruc; Joseph W. Freeman

Poster No. 1234

**Proteomic Profiling Of Non-inflammatory Proteins Involved In Skeletal Muscle Regeneration Following Ischemia-reperfusion Injury**

Ryan Sadjadi; Nesa Milan; Luke Sang; Aboubacar Wague; Juli Petereit; Xuhui Liu; Brian Feeley

Poster No. 1235

**Influence Of Past Pain Experience On The Biomechanics Of Gradient Running During A Cross-country Run Racing**

Satoshi Yamakawa; Koumei Watase; Hiromi Takahata; Tatsuo Mae; Akira Tsujii; Issei Ogasawara; Shoji Konda; Teruki Yokoyama; Takashi Kanamoto; Ken Nakata

Poster No. 1236

**Decreased Thigh Muscle Cross-sectional Area Following Acute ACL Injury Is Dependent On Concomitant Meniscal Injury And Subject Sex**

Kate French; Bruce Beynnon; Michael DeSarno; Pamela Vacek; Mickey Krug; Mack Gardner-Morse; Rebecca Choquette; Mathew Failla; Niccolo Fiorentino; Timothy Tourville; Michael Toth

Poster No. 1237

**Multi-omics Analysis Reveals Inadequate Oxidative Stress Handling Contributes To Exacerbated Quadriceps Atrophy In Females Following ACL Injury And ACLR**

Alexander R. Keeble; Nicholas Thomas; Allison M. Owen; Sara Gonzalez; Austin V. Stone; Darren Johnson; Brian Noehren; Christopher Fry

Poster No. 1238

As of 2.5.2025



## LIST OF POSTERS

---

**Fibro/Adipogenic Progenitor (FAP) Trajectory Analysis Reveals Adipogenic Commitment That Is Not Reflected In Elevated Fat Infiltration In The Quadriceps After ACL Reconstruction.**

Sara Gonzalez; Alexander Keeble; Allison M. Owen; Nicholas T. Thomas; Darren L. Johnson; Austin V. Stone; Yuan Wen; Brian Noehren; Christopher S. Fry



## LIST OF POSTERS

---

**Saturday, February 8, 2025**

10:00 AM - 7:30 PM

Room #: North Hall A-C

**PS1-090      Skeletal Muscle - Structure, Function, Mechanics and Mechanobiology**

Poster No. 1239

**A Computationally-designed 3d Printed Segmental Defect Implant For Optimized Mechanobiologic Performance Under Simulated Physiological Loads Using Sheep Model**

Ali Kiapour; Khashayar Khazaei; Mitchell Greenberg; Matias Alonso; Santiago Lozano-Calderon; Thomas Schaer

Poster No. 1240

**Surgical Simulations May Not Be Realistic Using Current Musculoskeletal Models**

Richard Lieber; Zheng Wang; Benjamin Binder-Markey; Lomas Persad; Alex Shin; Kenton Kaufman



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-091      Cartilage and Synovium- Diseases and Disorders**

Poster No. 1241

##### **Increased Synovial Inflammation And Pain In Females With Knee Osteoarthritis**

Miguel Otero; Bella Mehta; Caryn Hale; Tristan Maerz; Aimee Colbath; Peter Sculco; Anne-Marie Malfait; Sandy Younis; Solana Cushing; Dongmei Sun; Michael Parides; Yiyuan Wu; William Robinson; Daniel Ramirez; Edward DiCarlo; Dana Orange

Poster No. 1242

##### **Identifying Distinct Osteochondral Phenotypes In Hip Osteoarthritis: A Multiscale Analysis.**

Assil-Ramin Alimy; Julian Delsmann; Ana Ocokoljic; Eva Goedecke; Frank Timo Beil; Tim Rolvien

Poster No. 1243

##### **Plastin-3 Level-dependent Mechanisms In Cartilage Extracellular Matrix Degeneration Identified By Proteomics**

Anja Niehoff; Ilka Maus; Jan-Wilm Lackmann; Maren Dreiner; Miriam Weyers; Frank Zaucke; Brunhilde Wirth; Daniela Maehlich

Poster No. 1244

##### **Effect Of Osteoarthritic Infrapatellar Fat Pad On Cartilage Tissue Using An Ex Vivo Co-culture Model**

Tyler Stevens; Kathleen Harris; James Keeney; James Cook; Aaron Stoker

Poster No. 1245

##### **Life-long Post-traumatic Osteoarthritis And Sham Surgery Induce Structural Damage And Pain In Aged Mice**

Tiffany T.K. Pham; Gregor Bieri; Reyna E. Villa; Ryan Selle; Hope Welhaven; Turan Aghayev; Tamara A. Alliston; Saul A. Villeda; Kelsey H. Collins

Poster No. 1246

##### **Relationship Between Patient Reported Outcomes And Protein Content Of Infrapatellar Fat Pad Tissue Recovered From Osteoarthritic Knees**

Kathleen Harris; Tyler Stevens; James Keeney; James Cook; Aaron Stoker

Poster No. 1247

##### **The Therapeutic Potential of Clinically Used Nav1.7 Inhibitors In Osteoarthritis**



## LIST OF POSTERS

Chaopeng He; Wenyu Fu; Guiwu Huang; Chuan-ju Liu

Poster No. 1248

**Relationship Between Patient Reported Outcomes Scores And The Protein Content Of Synovial Tissue Recovered From Osteoarthritic Knees**

Kathleen Harris; Tyler Stevens; James Keeny; James Cook; Aaron Stoker

Poster No. 1249

**Comparison Of MSCs From Fresh And Frozen Bone Marrow Aspirate Concentrate For Chondrogenic Differentiation In Vitro**

Jacob Singer; Noah Knezic; Zuokui Xiao; Jonny Layne; Xueqin Gao; Haruki Nishimura; Aiping Lu; Johnny Huard

Poster No. 1250

**Functional Testing Of 54,478 Introgressed Neanderthal Variants In Musculoskeletal Tissues Reveals Differential Activity Between Ancestral And Derived Variants Relevant To Musculoskeletal Biology And Osteoarthritis**

Clarissa R. Coveney; Alexander S. Okamoto; Lesley Rendon-Hernandez; Marta A. Amani; Daniel Richard; Evelyn Jagoda; Terence D. Capellini

Poster No. 1251

**Single-cell Sequencing Of Rat Osteoarthritic Temporomandibular Joint Cartilage**

Sara Trbojevic; Robert Lafyatis; Jorge B. Pineda-Farias; Michael S. Gold; Juan Taboas; Alejandro Almarza

Poster No. 1252

**Application Of Spatial Transcriptomics To Human Osteochondral Explants And Intervertebral Disc Tissue To Enable Identification Of Molecular Pathways During Disease.**

Christine Le Maitre; Emily Chambers; Mark Dunning; Mark Wilkinson

Poster No. 1253

**Regenerative Capabilities Of Evs In An Inflammatory Environment In A 2d Monolayer Versus 3d Nanofiber Scaffolds**

Daniella V. Davia; Pooja Swami; Henintsoa Fanjaniaina Andriamifidy; Haixiang Liang; Daniel Grande

Poster No. 1254

**Assessing The Sex-dependent Contribution Of Estrogen Receptor- $\alpha$  Loss In Cartilage To Osteoarthritis**

Yangfan Lu; Yuesong Yin; Hang Lin

Poster No. 1255



## LIST OF POSTERS

**Distinct Molecular Signatures Across Disease Progression in Post-Traumatic and Non-Traumatic Ankle Osteoarthritis: Insights into Early Post-Fracture Mechanisms**

Julia Matthias; Michael David; Nathaniel Zona; Sara Buckley; Samuel Stark; Nicholas Austin; Michael Zuscik; Kenneth Hunt

Poster No. 1256

**Mutation In Atp13a2 Induces Apoptosis In Chondrocytes And Increases The Severity Of Spontaneous Osteoarthritis In An Aging Mouse Model**

Hakem A. Altawil; Madison M. Buckles; Kristina M. Croucher; Sheila M. Fleming; Mohammad Y. Ansari

Poster No. 1257

**Chondrocyte Hyaluronan Is Stolen By Macrophages In Co-cultures Of Chondrocytes And Macrophages**

Xinlin Yang; Weicheng Wang; Zhichang Zhang; Peng Xu; Quanjun Cui

Poster No. 1258

**Lactylation Modification Of Anxa Family Proteins Can Influence The Progression Of Rheumatoid Arthritis By Regulationg Lysosomal Membrane Permeanility Through The Inhibition Of Phospholipase Activity**

Yanqin Bian; Zheng Xiang; Pengfei Xin; Jianye Wang; Gabriela G Loots; Blaine A Christiansen; Lianbo Xiao

Poster No. 1259

**Nfat1 Deficiency Provokes Premature Intervertebral Disc Degeneration In Mice**

Jinxi Wang; Yi Feng; Simon Higginbotham; Qinghua Lu; Theodore Budden; Dalin Wang; Douglas Burton

Poster No. 1260

**Development Of A Rat Temporomandibular Joint Osteoarthritis Pain Model**

Sara Trbojevic; Jorge B. Pineda-Farias; Michael S. Gold; Alejandro Almarza

Poster No. 1261

**Effects Of Exosomes Released From Osteoarthritic Joint Tissues On Chondrocytes**

Riley Shepard; Amarion Robinson; Aaron Stoker

Poster No. 1262

**A Senescence Atlas For Osteoarthritic Cartilage**

Maiko Hermsmeier; Neety Sahu; Mamta Singla; Stuart Goodman; Nidhi Bhutani

Poster No. 1263

**Exploring The Impact Of hiPSC-derived Extracellular Vesicles (hiPSC-EVs) And ADSC-EVs On Enhancing The Human Articular Chondrocyte Function**



## LIST OF POSTERS

---

Chung-Hwan Chen; Hsuan-Ti Huang; Shu-Chun Chuang; Yi-Shan Lin; Cyong-yue Liu; Mei-Hsin Cheng; Tzu-Chiun Huang

Poster No. 1264

**Mavs Signaling Exacerbates Chondrocytes Extracellular Matrix Degradation In Osteoarthritis**

Hanli Guo; Minghui Sun; Juanjuan Zhu; Saihua Chen; Zhaoxi Guo; Xiang Zhang; Fajian Hou; Chunmeng Sun; Xiaonan Ma; Haiyang Hu; Ze Hong; Chen Wang

Poster No. 1265

**Insights Into Cartilage Breakdown In Osteoarthritis, A Histological Study Of Bovine Cartilage Plugs Exposed To OA Biomarkers**

Austin Lawrence; Joseph Boesel; Katie Beier; Lucas Ratiani; Hayes Unrein; Ahmed Suparno Bahar Moni

Poster No. 1266

**Withdrawn**



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-092      Cartilage and Synovium - Growth, Development and Aging**

Poster No. 1266

##### **Knee In A Dish: Specification Of ESC-derived Joint Progenitors With Differential Joint Tissue Potential**

Suyash Raj; Thomas Cutia; Stefano Menghini; Junming Cai; Mireia Alemany Ribes; Mariel Young; Terence Capellini; April M. Craft

Poster No. 1267

##### **Differential Effects Of Growth Factor BMP13 On Juvenile And Adult Cartilage**

Vianna G. Martinez; Pranav Rastogi; Amy McNulty

Poster No. 1268

##### **PRDM16 Maintains Cartilage Homeostasis By Modulating Chondrocyte Phenotypes**

Eloise Fadiel; Victoria Hansen; Eliya Tazreena Tashbib; Gulzada Kulzhanova; Alexis Klee; Jennifer Jonason; Chia-Lung Wu

Poster No. 1269

##### **Activation Of Sirtuin 6 (sirt6) Enhances Dna Damage Repair In Primary Human Chondrocytes**

Ishani H. Deliwala; Elena V. Filippova; Jacqueline Shine; Miguel Angel Martinez Leal; Adam B. Yanke; Richard F. Loeser; Brian O. Diekman

Poster No. 1270

##### **Histological, Molecular And Mechanical Integrity Approach On Articular Cartilage In Idiopathic Osteoarthritis In Aged C57bl/6jn Mice**

Manuela Oviedo; Katherine M. Arnold; Elizabeth L. Zars; Samantha R. Weaver; Eduardo Peralta-Herrera; Jennifer J. Westendorf

Poster No. 1271

##### **Multomic Single Nucleus Sequencing Reveals Epigenetic Changes In Fetal Chondrocytes Exposed To The Obese Uterine Environment**

Arin K. Oestreich; Shirley N. Tang; Kristin L. Lenz; Lauryn A. Braxton; Tiandao Li; Bo Zhang; Farshid Guilak

Poster No. 1272

##### **Interactions Of OA GWAS Risk Variants Impact Joint Morphology, GDF5 Expression, And Chondrogenic Potential**





## LIST OF POSTERS

Clarissa R. Coveney; David Maridas; Talia Kahan; Pushpanthan Muthuirulan; Zun Liu; Vicki Rosen; Ata M. Kiapour; Terence D. Capellini

Poster No. 1273

**Retinoid Signaling Controls The Developmental Fate Of Hpsc-derived Chondroprogenitors: Toward Articular-like Permanent Chondrocytes Or Endochondral Ossification-prone Chondrocytes**

Kiminari Kataoka; Noah Knezic; Lucas Minas; Meredith Luhmann; Johnny Huard; Naoki Nakayama

Poster No. 1274

**Soluble And Insoluble Factors Mediate Stem Cell Rejuvenation**

Ming Pei; Asong Nkemanjong; Yiming Lu; Qingqing Yu; Louis Zhang

Poster No. 1275

**Pinpoint En Face Delivery Of Cell Tracker To Superficial Zone Chondrocytes In Articular Cartilage**

Xueyi Wan; Gayatri Kalyan; Van W. Wong; Albert C. Chen; Peter J. Chen; Barbara L. Schumacher; Koichi Masuda; Robert L. Sah

Poster No. 1276

**Novel Binary Cre Transgenic Mouse Model For Studying The Fate Of Synovial Lining Macrophages In Oa**

Nikola Jaworska; Baifeng Yu; Isabella YZ Goh; Nurlatifa ZM Fuad; Natalia S. Harasymowicz

Poster No. 1277

**Differentiation Of Human Periosteum Into Cartilage: Characterizing Stem Cell Populations And Growth Factor Influences On Cartilage Typing**

Weijia Zhou; Kathy Cao; Caleb Witsken; Lorenzo Deveza



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-093      Cartilage and Synovium - Injury and Healing**

Poster No. 1278

##### **Depletion Of Chemokine Receptor Ccr7 Enhances Meniscus Regeneration In Mice**

Ryuichi Fukuda; Masatake Matsuoka; ryosuke hishimura; Yuko Sakai; Shota Ike; Tomohiro Onodera; Norimasa Iwasaki

Poster No. 1279

##### **3d T2\* Mapping Of Articular Cartilage At 7 Tesla Before And After Repair Of The Medial Meniscus Root Tear**

Karsten Knutsen; Collin Steinberger; Eisa Hedayati; Abhinav Lamba; Stefan Zbyn; Morgan Homan; Luke Tollefson; Takashi Takahashi; Greg Metzger; Robert LaPrade; Jutta Ellermann; Abdul Wahed Kajabi

Poster No. 1280

##### **Effect Of Osteoarthritic Cartilage Biomechanical And Structural Properties On Tissue Protein Content**

Gabriel J. Keeton; Corder E. Lehenbauer; Luke Marx; Owen D'Armour; Matthew Klotz; Arjuna Raghu; Kharis Andrews; Chantelle Bozynski; James Keeney; James L. Cook; Aaron Stoker

Poster No. 1281

##### **Symptoms Suggestive Of Early-stage Knee Oa Associate With Bone Shape Changes Post-acl Injury: Data From The Kanon Trial**

Armaghan Mahmoudian; Matthew Harkey; Mike Bowes; Stefan Lohmander; Richard Frobell; Frank Roemer; Aleksandra Turkiewicz; Martin Englund

Poster No. 1282

##### **Human Knees Exhibit A Chronic Low-grade Synovitis After Anterior Cruciate Ligament Injuries**

Shen-Ying (Richard) Ma; Aaron Stoker; James Cook; Keiichi Kuroki

Poster No. 1283

##### **Single Cell RNA Sequencing Of Rat Osteochondral Repair Tissue Demonstrates Reduced Antioxidant Gene Expression That May Contribute To Neochondrocyte Senescence**

Luke Childress; Landon Gatrell; Intawat Nookaew; Ryan Porter

Poster No. 1284

##### **Arthroscopic Induction Post-traumatic Knee Osteoarthritis In A Novel Bipedal Turkey Model**



## LIST OF POSTERS

---

Chunfeng Zhao

Poster No. 1285

**A Novel Goat Model To Test Regenerative Therapies Targeting TMJ Osteoarthritis**

Mairobys Socorro; Xudong Dong; Sara Trbojevic; Juan Taboas; Alejandro Almarza

Poster No. 1286

**Rejuvenated Autologous Chondrocyte Implantation (RACI) - A New Procedure For Regenerating Articular Cartilage Through Controlled Chemical Rejuvenation Of Articular Chondrocytes**

Arijita Sarkar; Siyoung Lee; Denis Evseenko

Poster No. 1287

**Mitochondrial Transplantation As A Potential Therapeutic For Osteoarthritis**

Daniel Bowles; Henintsoa Fanjaniaina Andriamifidy; Kenneth Zaslav; Daniel Grande

Poster No. 1288

**CCR7 Deficiency Alleviates Bony Bar Formation And Bony Growth Imbalance Following Physeal Injury In Mice.**

Yuko Sakai; Wooyoung Kim; Masatake Matsuoka; Yoshiaki Hosokawa; Ryuichi Fukuda; Kentaro Homan; Tomohiro Onodera; Norimasa Iwasaki



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-094      Cartilage and Synovium - Mechanobiology**

Poster No. 1289

#### **Static Compression Reduces Proteoglycan Biosynthesis In Chondrocytes By Modulating Glycolytic Enzyme Activities**

Thien Phan; Jacob Jahn; Estefania Esparza; Zhipeng Meng; Weiyong Gu; Charles Huang

Poster No. 1290

#### **Synthetic Mechanogenetic Gene Circuits Reveal The Role Of TRPV4 In Chondrocyte Mechanosensing Of Matrix Stiffness**

Yu Seon Kim; Nancy Steward; Autumn Kim; Farshid Guilak

Poster No. 1291

#### **Withdrawn**

Poster No. 1292

#### **Emergent Mechano-activated Synovial Fibroblasts Drive Fibrotic Remodeling In A Murine Model Of Oa**

Sung Yeon Kim; Easton Farrell; Kevin Burt; Alexander Knights; Vu Nguyen; Tristan Maerz; Carla Scanzello; Robert Mauck

Poster No. 1293

#### **Universality In Strain Stiffened Articular Cartilage**

Japheth Omonira; Itai Cohen

Poster No. 1294

#### **Influence Of Mechanical Loading On Human Osteochondral Tissue Explants**

Ella Reeves; William Giles; Endre Kiss-Toth; Mark Wilkinson; Christine Le Maitre

Poster No. 1295

#### **Biomechanical Properties Of Osteoarthritic Cartilage And Its Effects On The Tissue'S Metabolic Response To Load**

Corder E. Lehenbauer; Owen M. D'Armour; Gabriel J. Keeton; Luke B. Marx; Matthew Klotz; Arjuna Raghu; Kharis Andrews; Chantelle C. Bozynski; Brett D. Crist; James Keeney; James L. Cook; Aaron M. Stoker



## LIST OF POSTERS

---

Poster No. 1296

**Regional Augmentation Of Piezo1 Expression In Human Humeral Head Cartilage**

Mumin Sabha; Sukhee Lee; Sandeep Mannava; Whasil Lee

Poster No. 1297

**Integrating In Silico And In Vitro Techniques To Study Cartilage Mechanobiology With A Cartilage-on-chip Setup**

Satanik Mukherjee; Raphaelle Lesage; Laurens Spoelstra; Thanh Le; Carolina Larrea; Carlo A. Paggi; Jorge Barrasa Fano; Hans Van Oosterwyck; Marcel Karperien; Liesbet Geris



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-095      Cartilage and Synovium - Structure, Function and Mechanics**

Poster No. 1298

##### **Distribution Of Chondrocyte Membrane Ruffles Is Direction- And Zone-dependent**

Ali Ahmadi; Yazan Zeidat; Walter Herzog; Eng Kuan Moo

Poster No. 1299

##### **Decorin Maintains Cartilage Surface Integrity By Limiting Aberrant Realignment Of Collagen II Fibrils**

Mingyue Fan; Thomas Li; Yuchen Liu; Bryan Kwok; Aanya Mohan; Michael Newton; Neil Patel; Jiaqi Xiang; David E. Birk; Renato V. Iozzo; Tristan Maerz; Robert L. Mauck; Lin Han

Poster No. 1300

##### **An Automated Pipeline For Segmentation And Extraction Of Tibiofemoral Cartilage T1ρ Relaxation Times**

Patrick X. Bradley; Amber T. Collins; Alexie D. Riofrio; Lauren N. Heckelman; Wyatt A R Smith; Lindsey C. Michel; Andrzej S. Kosinski; Charles E. Spritzer; Louis E. DeFrate

Poster No. 1301

##### **Differential Fluid Flow, Oscillating Hydrostatic Pressure, And Tgf-β3 Synergistically Promote Spatial Chondrogenic Mrna Expression In Engineered Articular Cartilage**

Terreill Robertson; Alec Schuler; Salman Matan; David Thiessen; Wenji Dong; Arda Gozen; Ryan Driskell; Lawrence Bonassar; Bernie Van Wie

Poster No. 1302

##### **Hyaluronic Acid Modulates The Lubricating Ability Of Recombinant Equine Lubricin**

Spencer Witt; Karan Vishwanath; Marshall Colville; Heidi Reesink; Matthew Paszek; Lawrence Bonassar

Poster No. 1303

##### **A Cellular Proximity Atlas Of Post-Traumatic OA Synovium By Single-cell Spatial Transcriptomics**

Helen Tran; Aanya Mohan; Lindsey Lammlin; Adrienne Giannone; Easton Farrell; Sofia Gonzalez-Nolde; Danny Nguyen; Stephen Redding; Michael Newton; Kurt Hankenson; Alexander Knights; Tristan Maerz

Poster No. 1304

##### **An In Vitro Model Of Calcified Cartilage - Development, Characterization, And Achieving Mineral Homeostasis**



## LIST OF POSTERS

Michael Mulholland; Michael Pickell; Sasha Carsen; Fabio Variola; Jean-Philippe St-Pierre

Poster No. 1305

**Effect Of Patient Age And BMI On The Metabolic Responses Of Osteoarthritic Cartilage To Load**

Owen D'Amour; Corder Lehenbauer; Gabriel Keeton; Matt Klotz; Luke Marx; Arjuna Raghu; Chantelle Bozynski; Brett Crist; James Keeney; James Cook; Aaron Stoker

Poster No. 1306

**Development Of An In Vitro Method For Assessing The Mechanical Durability Of Cartilage Repair Strategies**

Samar A. Tarraf; Renato Castillo; Yasaman Pooshidani; Amelia Duguay; Colleen Mathieu; Jack Chapman; Sotcheadt Sim; Eric Quenneville; Martin Garon

Poster No. 1307

**Effect Of Anatomic Location On The Metabolic Responses Of Osteoarthritic Cartilage To Compressive Load**

Luke Marx; Corder Lehenbauer; Gabriel Keeton; Matthew Klotz; Arjuna Raghu; Owen D'Armour; Kharis Andrews; James Keeney; Brett Crist; Chantelle Bozynski; James Cook; Aaron Stoker

Poster No. 1308

**Synovial Fluid Breaks Down During Daily Reciprocating Sliding Frictional Contact In Immature Bovine Cartilage**

Kimberly Kroupa; Vince Sise; Matthew Pellicore; Ndubuisi Obasi; Sinisa Vukelic; Clark Hung; Gerard Ateshian

Poster No. 1309

**Tissue-clearing Techniques To Visualize Neurofilament Positive Nerves In The Rat Knee Joint**

Mairobys Socorro; Janak Gaire; Juliane Rolim de Lavor; Megan Smith; Alan Watson; Kyle Allen; Yenisel Cruz-Almeida; Robert Caudle; Alejandro Almarza

Poster No. 1310

**Osteoarthritis In Vitro Model Using Mechanical Compression Or Shear Damage On Equine Osteochondral Plug**

Colleen Mathieu; Vanessa Piché; Maria Bikuna-Izagirre; Amelia Duguay; Jasmine Doan; Renato Castillo; Yasaman Pooshidani; Eric Quenneville; Martin Garon



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-096      Cartilage and Synovium - Treatment and Therapeutics**

Poster No. 1311

#### **Effect Of Wharton's Jelly Mesenchymal Stem Cells Secrete Extracellular Vesicles On Cell Proliferation, Survival And Oxidative Stress In Chondrocytes**

Che Wei Wu; Yin-Chih Fu; Pei-Ling Shao; Ling-Hua Chang; Ya-Shuan Chou; Yun-Ya Tsao; Shun Cheng Wu

Poster No. 1312

#### **Withdrawn**

Poster No. 1313

#### **Treatment With Parathyroid Hormone Following A Single Bout Of Loading Does Not Attenuate Post-traumatic Osteoarthritis Progression**

Ana Witkowski; Adrien Antoinette; Sophia Ziemian; Miguel Otero; Marjolein C van der Meulen

Poster No. 1314

#### **Evaluation Of The Morphology And Cellular Functionality Of Delaminated Acetabular Cartilage**

Janosch Schoon; Sebastian Gebhardt; Emely Bortel; Georgi I. Wassilew; Alexander Zimmerer

Poster No. 1315

#### **C-type Natriuretic Peptide Suppresses Vegfa Gene Expression By Attenuating Il6-stat3 Signal Pathway In Primary Synovial Fibroblasts From Rat Knee**

Riko Yamashita; Iori Nozawa; Shoichi Hasegawa; Yusuke Nakagawa; Kazumasa Miyatake; Hiroki Katagiri; Tomomasa Nakamura; Hideyuki Koga; Toshitaka Yoshii; Kunikazu Tsuji

Poster No. 1316

#### **The Intracellular Fate Of Ultrasmall Fluorescent Silica Nanoparticles As Drug Delivery Vehicles In Cartilage Explants**

Aiyana G. Fortin; Antonio T. Garces; Ulrich B. Wiesner; Lawrence J. Bonassar

Poster No. 1317

#### **Improving Autologous Chondrocyte Implantation Using Lyophilized Human Platelet Lysate**

Janosch Schoon; Celina Owczarek; Kerstin Wendland; Georgi I. Wassilew; Konstanze Aurich; Sebastian Gebhardt





## LIST OF POSTERS

Poster No. 1318

**Transcriptomic Analysis Of Dlx5 Knock-down MSCs Reveals Differential Regulation Of Oa And Wound-healing Gene Networks**

Jay Trivedi; My Anh Nguyen; Salomi Desai; Chathuraka Jayasuriya

Poster No. 1319

**Multi-modal Cartilage PCM Restoration With A Tissue Penetrating Hyaluronic Acid Hydrogel**

Tristan Pepper; Jay Patel; Hicham Drissi; Saitheja Pucha; Thanh Doan; Meghan Alexander; Lauren Foster

Poster No. 1320

**Withdrawn**

Poster No. 1321

**Hyaluronic Acid-metformin Conjugate Injections Prevent Oa Development In Mice**

Vasyl Pastukh; Jianying Zhang; Soichi Hattori; Derek Maloney; Satyaj Bhargava; James H-C. Wang

Poster No. 1322

**Improved Cartilage Repair With Anti-fibrogenic Imsc-like Chondrogenic Smart Cells That Auto-regulate Tgf- $\beta$ 1**

Noah Knezic; Xueqin Gao; Ping Guo; Lucas Minas; Farshid Guilak; Johnny Huard; Naoki Nakayama

Poster No. 1323

**Novel ikb $\zeta$  Inhibitor Protects Against The Development Of Murine Osteoarthritis**

Gaurav Swarnkar; Manoj Arra; Musarrat Naaz; Prashant Gupta; Srikanth Singamaneni; Yousef Abu-Amer

Poster No. 1324

**Gpcr Kinase 2 Inhibition Restores Chondrocyte Anabolism And Ameliorates Pain And Inflammation In Aging-Induced Osteoarthritis**

Tarek Haj Shehadeh; Vengadeshprabhu Karuppagounder; William Pinamont; Gina Deiter; Brandon Buss; Reyad Elbarbary; Fadia Kamal

Poster No. 1325

**Analysis Of Accessible Stem Cell Sources For Chondrogenic Repair Of Temporomandibular Joint Osteoarthritis**

Hannah M. Bonelli; Cristina Barbella; Hagar M. Kenawy; Riccardo Gottardi

Poster No. 1326

**Chondrocyte-derived Decellularized Matrices Enhance Superficial Zone Chondrocyte Expansion And Redifferentiation**



## LIST OF POSTERS

Thomas J. Manzoni; Anh Ho; Lilly Smull; Alvin Su; Justin Parreno

Poster No. 1327

**Lubricin Protects Against Cartilage Degeneration Following Anterior Cruciate Ligament Transection In Rats**

Sydney Womack; Erica Secor; Ashley Schiller; Sophie Nelissen; Aiyana Fortin; Marshall Colville; Lawrence Bonassar; Matthew J. Paszek; Heidi Reesink

Poster No. 1328

**Lubricin-inspired Polymer Achieves Superior Cartilage Boundary Lubrication**

Spencer Witt; Sun Zhexun; Yu Yu; Lawrence Bonassar

Poster No. 1329

**Cell-secreted Extracellular Matrix Potentiates Growth Factor Signaling And Chondrogenic Differentiation Of MSC Spheroids**

Shierly Fok Lau; David H. Ramos-Rodriguez; Connor Dorais; Andrea Filler; Mason Caserta; Kent Leach

Poster No. 1330

**Therapeutic Role Of A Tgf- $\beta$ 1 Autonomous Regulation Smart Cell'S Exosome For Osteoarthritis In Vitro**

Alexandra Alessi; Ping Guo; Johnny Huard; Farshid Guilak

Poster No. 1331

**Injected Articular Cartilage Progenitor Cells Are More Efficacious Than Mesenchymal Stromal Cells In A Model Of Post-traumatic Osteoarthritis**

Heidi Kloser; Parvathy Thampi; Taryn Boxleitner; Nyzek Rodriguez; Katie Sikes; Kelly Santangelo; Laurie Goodrich; Brian Johnstone

Poster No. 1332

**Clinical, Arthroscopic, MRI, And Histological Outcomes After Arthroscopic Implantation Of Cryo-preserved Autogenous Cultured Chondrocyte (as-aci) With Fibrin Hydrogel For Knee Cartilage Lesion In Patients With An Early Stage Of Osteoarthritis: A Prospective Case Series Clinical Study With 1-year Follow-up**

Akira Tsujii; Takashi Kanamoto; Tatsuo Mae; Tomoki Ohori; Seira Sato; Mutsumi Sato; Seiji Okada; Ken Nakata

Poster No. 1333

**Extracellular Vesicles Derived From Specific Phenotype Of Neutrophils Suppress The Degradation Of Cartilage Via Promoting The Expression Of Secreted Frizzled Related Protein 5 In Chondrocytes**



## LIST OF POSTERS

Keita Kitahara; Mohamad Alaa Terkawi; Taku Ebata; Tsutomu Endo; Tomohiro Shimizu; Daisuke Takahashi; Tsuyoshi Asano; Norimasa Iwasaki; Taku Ebata

Poster No. 1334

**Treatment With The Mitochondria Protectant Spn-15 Leads To Reduced Osteoarthritis-associated Changes In Gait And Pain In A Mouse Model Of Tibial Loading-induced Osteoarthritis**

Leonardo Albertini Sanchez; Samantha Lessard; Purva Singh; Camila Carballo; Hazel Szeto; Miguel Otero; Scott Rodeo

Poster No. 1335

**Ipsc-derived Anti-inflammatory Macrophages As A Preventive Treatment For Knee Post-traumatic Osteoarthritis**

Nadia Mahmoudi; Julia Sheyn; Lea Zila; Anoushka Prasad; Melissa Chavez; Namdev More; Andrew Spitzer; Sean Rajae; Wafa Tawackoli; Dmitriy Sheyn

Poster No. 1336

**Irrigation With Cold Saline Improves Chondrocyte Viability In Donor Osteochondral Allograft Harvesting**

Adam Yanke; Andrew Phillips; Erik Haneberg; Zachary Oppenheim; Edouard Augustin; Ron Gilat; Vince Morgan; Brian Cole

Poster No. 1337

**Effects Of Estradiol (17-alpha) On Osteoarthritis And Bone Development In Genetically Heterogeneous Het3 Male Mice**

Sara McBride-Gagy; Robert Smallwood; Trinity Dort; Carl J Replogle; Jacob Barnes; Kell Sprangel; Jake Willows; magdalena blaszkiewicz; Sarah Peters; Nicholas Greco; Kristy Townsend

Poster No. 1338

**Functional Assessment Of Genetically Modified Infrapatellar Fat Pad Mesenchymal Stem/Stromal Cell Derived Extracellular Vesicles (EVs): Potential Implications For Inflammation/Pain Reversal In Osteoarthritis**

Kevin Liebmann; Mario Castillo; Stanislava Jergova; Tom M. Best; Jacqueline Sagen; Dimitrios Kouroupis



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-097      Multi-Organ System Crosstalk**

Poster No. 1339

#### **Fm1-43 Attenuates Complete Freund's Adjuvant Induced Sensitization And Pain**

Natalie S. Adamczyk; Dongjun Ren; Richard J. Milller; Anne-Marie Malfait; Rachel E. Miller

Poster No. 1340

#### **Induced Pluripotent Stem Cell-derived Cardiomyocytes: A Model Investigating The Effects Of Implant Wear Products**

Edgar Lopez; Puranjay Gupta; Hemalatha Kanniyappan; Mohammed F. Alam; Gitika Thakur; Yani Sun; Xuejun Li; Mathew Mathew

Poster No. 1341

#### **Thrombospondin-4 Expression In The Infrapatellar Fat Pad And Its Contribution To Osteoarthritis Pain**

Frank Zaucke; Sebastian Braun; Patrizia Pollinger; Rebecca Sohn; Gundula Roesch; Zsuzsa Jenei-Lanzl

Poster No. 1342

#### **Developing An In Vitro Osteochondral Micro-physiological System For Modelling Cartilage-bone Crosstalk In Arthritis**

Kyra W. Y. Smith; Stephanie L. Fung; Hsin-Fang Wu; Irene Chiesa; Giovanni Vozzi; Carmelo De Maria; Riccardo Gottardi

Poster No. 1343

#### **Sex-specific Myokine Response To Exercise In Foals**

Samantha Hammack; Sara Moshage; Mariana Kersh; Annette McCoy



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-098 Hip and Knee Arthroplasty - Clinical Outcomes**

Poster No. 1344

##### **The Influence Of Neuropathic Pain And Central Sensitization Before And After Total Knee Arthroplasty**

Makoto Kawasaki; Hitoshi Suzuki; Manabu Tsukamoto; Tomoya Arashi; Kotaro Tokuda; Yoshiaki Yamanaka; Ryutaku Kaneyama; Ryuji Nagamine; Akinori Sakai

Poster No. 1345

##### **The Efficacy Of Cefazolin Vs Non-cephalosporin Alternatives In Periprosthetic Joint Infection Prevention After Hip And Knee Arthroplasty**

Sanjana D. Kanumuri; Suhas Dasari; Owen Roth; JaeWon Yang; Navin Fernando; Nicholas Hernandez

Poster No. 1346

##### **Total Knee Replacement Outcome In Type 2 Diabetics After Achieving Glycemic Control: The Role Of Diabetic Chronicity**

Chun Man Lawrence Lau

Poster No. 1347

##### **Assessing The Impact Of A Transitional Care Program Following Inpatient Admission After Lower Extremity Arthroplasty**

Kwan J. Park; Mackenzie A. Neumaier; Thomas C. Sullivan; Katherine E. Schriener; Sade P. Kelly; Terry A. Clyburn; Timothy S. Brown

Poster No. 1348

##### **Has The Transition To Outpatient Total Joint Arthroplasty Worked For Hospitals And Patients?**

Mikhail Kuznetsov; Hannah Travers; Sydney Paoletti; Ruijia Niu; Eric Smith

Poster No. 1349

##### **Bipolar Sealers Reduce Blood Loss In Knee Arthroplasty Without Tourniquet**

noah epstein

Poster No. 1350

##### **Successful Versus Unsuccessful Manipulation Under Anesthesia After Primary Total Knee Arthroplasty**

Kwan J. Park; Justin M. Walsh; Thomas C. Sullivan; Blesson Varghese; Karen L. Hernandez; Stephen J. Incavo; Timothy Brown



## LIST OF POSTERS

Poster No. 1351

**Survivorship Of Total Knee Arthroplasty Following High Tibial Or Distal Femoral Osteotomy: A Case Control Study**

Mary Bayers-Thering; Ella MacDonald; Matthew Phillips

Poster No. 1352

**Impact Of Patient Matched Constitutional Alignment On The Early Clinical Outcomes Of Robotic-Assisted Total Knee Arthroplasty**

Carlos Salazar; Brenden Cutter; Zeynep Seref-Ferlengez; Carlos Alvarado

Poster No. 1353

**Inpatient Represents A Minority Of Medicare THA Patients With Distinct Characteristics And Worse Outcomes**

Ignacio Pasqualini; Alison Klika; Chao Zhang; Alexander Roth; Matthew Deren; Anabelle Visperas; Michael Bloomfield; Viktor Krebs; Nicolas S PiuZZi

Poster No. 1354

**Implant Design And Surgical Alignment Technique Have Little Impact On Muscle Activation Pattern During Isometric Extension And Flexion**

Teri Ross; Alexis Nelson-Tranum; Nuanqiu Hou; Douglas Powell; James Guyton; John Crockarell; Christopher Holland; Derek Dixon; Austin Jernigan; Joshua Sawiers; Carlos Rivera-Peraza; John Jestus; Marcus Ford; William Mihalko

Poster No. 1355

**Withdrawn**

Poster No. 1356

**Inpatient Represents Approximately One-third Of Medicare TKA Patients With Distinct Characteristics And Worse Outcomes**

Ignacio Pasqualini; Shujaa T. Khan; Alison Klika; Chao Zhang; Alexander Roth; Matthew Deren; Anabelle Visperas; Michael Bloomfield; Viktor Krebs; Nicolas S PiuZZi

Poster No. 1357

**Bariatric Patient Population Demographics In A Public Academic Total Joint Arthroplasty Clinic**

Cale Dobson; Victoria C. Tappa; Jacob M. Elkins

Poster No. 1358

**Post-operative Opioid Use After Revision Total Knee Arthroplasty**

Isaiah Selkridge; Jonggu Shin; Himani Kolli; Allina Nocon; Gwo-Chin Lee; Peter Sculco; Himani Kolli



## LIST OF POSTERS

Poster No. 1359

**Does Range Of Motion Trajectory Differ By Indication For Revision Total Knee Arthroplasty? The Stiffness Vs Non-stiffness Perspective**

Jonggu Shin; Isaiah Selkridge; Stefano Ghirardelli; Allina Nocon; Gwo-Chin Lee; Thomas Sculco; David Mayman; Peter Sculco

Poster No. 1360

**Withdrawn**

Poster No. 1361

**The Knee Sagittal Moment As An Indicator Of Recovery After Tka**

Fernando Quevedo Gonzalez; Theofilos Karasavvidis; Cale Pagan; Edward Grabov; Joseph Lipman; Cynthia Kahlenberg; Peter Sculco; Timothy M Wright; Mayman David; Jonathan Vigdorichik; Eytan Debbi

Poster No. 1362

**From Theory To Practice: Integrating Wearable Technology Into Clinical Environments**

Natalia Cruz-Ossa; Jonathan M. Stern; Antonio Fernandez-Perez; Sarah Bolander; Victor H. Hernandez

Poster No. 1363

**Utilizing Wearable Devices To Detect Differences In Recovery Outcomes Following Total Knee Arthroplasty Based On Patient Demographics**

Antonio Fernandez-Perez; Jonathan M. Stern; Natalia Cruz-Ossa; Victor H. Hernandez; Richard Bolander

Poster No. 1364

**Patient Factors Impacting Forgotten Joint Score In Total Knee Arthroplasty**

John E. Whitaker; James Soderstrom; Andrew Swiergosz; Joseph Kitchen; Langan S. Smith; Arthur L. Malkani

Poster No. 1365

**Preoperative Risk Assessment Of Prolonged Hospital Length-of-stay Following Primary Total Knee Arthroplasty: A Comparison Of The Asa, Charlson, And Elixhauser Comorbidity Indices**

Torben H. Urdahl; Ayush D. Shah; Brooke Patterson; Schelomo Marmor; Michael Dohm

Poster No. 1366

**Postoperative Pain And Analgesic Use After Preoperative Methadone For Total Knee Arthroplasty, A Prospective Randomized Double-blind Study**

John E. Whitaker; Andrew Swiergosz; Rohat Bhimani; Joseph Kitchen; Sofia Brown; Langan S. Smith; Arthur L. Malkani



## LIST OF POSTERS

---

Poster No. 1367

**A More Minimally Invasive Approach Leads To Decreased Postoperative Chronic Opioid Use In Total Knee Arthroplasty**

Joydeep Baidya; Nicholas Pohl; Evan Derector; Ryan Garemani; Jake O'Hara; Chloe Herczeg; Arjun Saxena





## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-099 Hip and Knee Arthroplasty - Complications/Infections**

Poster No. 1368

##### **Relevance Of Medial Wall Defects In Determining Acetabular Strength In Total Hip Arthroplasty: A Pilot Study On Bone Surrogates**

Landyn Froberg; Steven Kautz; Shane Barton; Giovanni F. Solitro

Poster No. 1369

##### **The Needle Stick From Hip Injections May Increase Periprosthetic Joint Infection Risk Within 3 Months Of Total Hip Arthroplasty**

Hania Shahzad; Om Patel; Shannon Tse; J.B. Smith; David Dallas-Orr; Mauro Giordani; Safdar Khan; Zachary Lum

Poster No. 1370

##### **Single Kidney Patients Face Increased Risk For Some Complications Following Total Knee Arthroplasty**

Lucas Y. Kim; Wesley Day; Albert Lee; Jonathan N. Grauer

Poster No. 1371

##### **Postoperative Complication Rates And Incidence Of Heterotopic Ossification Following Total Hip Arthroplasty In Patients With Ankylosing Spondylitis: A Systematic Review**

Omkar Anaspure; Andrew Newsom; Shiv Patel; Anthony Baumann; Weston Smith; Neil Sheth

Poster No. 1372

##### **Exploring And Quantifying The Pathogenic Mechanisms Contributing To Osteolysis In The Context Of Prosthetic Joint Infections (PJI)**

Beethi Sinha; Brady Nicewarner; Elizabeth Stewart; Matthew Dietz

Poster No. 1373

##### **Are Hypersensitivities Towards Metals Causing Implant Failure In Orthopedics?**

Lea Heinemann; Stefanie Donner; Melanie Ort; Carsten Perka

Poster No. 1374

##### **Reduced Incidence Of Mid-flexion Instability With Force-controlled Gap-balancing In Total Knee Arthroplasty**



## LIST OF POSTERS

Laurent D. Angibaud; amaury Jung; Prudhvi Tej Chinimilli; Omar NAJI; Hiroshi Watanabe; Pedro J. Torrijos; Mattia Filanti; James Huddleston

Poster No. 1375

**Intraosseous Vancomycin Is Safe And Effective In Primary Total Hip Arthroplasty**

Timothy S. Brown; Charles Granade; Thomas C. Sullivan; Bradley Lambert; Kwan J. Park; Stephen J. Incavo; Terry A. Clyburn

Poster No. 1376

**For Primary Joint Arthroplasty, Which Mixing Regimen Maximizes Vancomycin Elution From Polymethylmethacrylate?**

Mohammed Hammad; Christina Chao; Andi Garcia-Ortiz; Jo Suenghwan; Mathias Bostrom; Alberto Carli

Poster No. 1376A

**Lessons Learned From The Retrieval Of Orthopaedic Implants**

Mwangi WaMaina; Kaajal Rengaraj; Mareeswari Paramasivan; Govindaraj Perumal; Apurva Choubey; Rana Ahmad; Brett Drake; Maansi Thapa; Yani Sun; Mark Gonzalez; Mathew Mathew

Poster No. 1377

**Influence Of Antibiotic-loaded Bone Cement On Antibiotic Resistance In Acute Periprosthetic Joint Infections Following Primary Total Knee Arthroplasty**

Mohammed Hammad; Mia Fowler; Elizabeth Robilotti; Henry Michael; Andy Miller; Alberto Carli

Poster No. 1378

**Delamination And Oxidation In Exactech Patellar Components: To Revise Or Not To Revise**

Aarti Shenoy; Peter Hsiue; Elexis Padgett; Westrich Geoffrey; Thomas Sculco



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-100 Hip and Knee Arthroplasty - Implant Materials, Fixation and Wear**

Poster No. 1379

##### **Comparative Performance Of Contemporary UHMWPE Total Knee Arthroplasty Bearings Under Aggressive Wear Testing**

Luis Alvarez; Chris Gigliotti; Ilana Zarour; Bo Gao; Keith Wannomae; Orhun Muratoglu; Hany Bedair

Poster No. 1380

##### **Subcutaneous Implantation Of Submicron GS-UHMWPE**

Mehmet Asik; Timothy Zhao; Yingfang Fan; Matheus Ferreira; Keita Fujino; Nicoletta Inverardi; Amita Sekar; Lu Yang; Fawaz B. Malick; Keith Wannomae; Ebru Oral; Orhun Muratoglu

Poster No. 1381

##### **Clinical And Patient Reported Outcomes Of A Kinematically Designed Cruciate Retaining Total Knee Arthroplasty With A Novel Medial Dished Insert Design**

Zoe Alpert; Sophia Antonioli; Daniel Waren; Ran Schwarzkopf

Poster No. 1382

##### **Clinical And Patient Reported Outcomes Of A Novel Fully Cementless System Following Total Knee Arthroplasty**

Zoe Alpert; Sophia Antonioli; Daniel Waren; Joshua Rozell; Ran Schwarzkopf

Poster No. 1383

##### **Quantification Of Damage And Wear Of Retrieved Femoral Components Of Total Knee Replacements**

Taber Ball; Neha Kulkarni; Edward Ebrahimzadeh; Sophia N. Sangiorgio

Poster No. 1384

##### **Sub-micron Gentamicin Sulfate Particles For Enhanced Antibiotic Release And Mechanical Strength In Ultrahigh Molecular Weight Polyethylene Spacers**

Mehmet Asik; Eileen Walsh; Nicoletta Inverardi; Cecilia Nepple; Devika Kannambadi; Timothy Zhao; Amita Sekar; Matheus Ferreira; Keith Wannomae; Ebru Oral; Orhun Muratoglu

Poster No. 1385

##### **Preoperative Hounsfield Unit Measurement Correlates With Cementless Versus Cemented Implant Choice Made Intraoperatively Based On Bone Quality**



## LIST OF POSTERS

Timothy S. Brown; Aamir Bhimani; Thomas C. Sullivan; Robert S. Neff; Terry A. Clyburn; Kwan J. Park

Poster No. 1386

**Synovial Fluid After Total Knee Arthroplasty Degrades The CoCrMo Oxide Film, Increasing Corrosion**

Bailey Bond; Michael Kurtz; Shabnam Aslani; Madison Brown; Alexia Paxton; Steven Kurtz; Jeremy Gilbert; William Mihalko

Poster No. 1387

**Corrosion At The Modular Junction In Revised Total Knee Replacements With Extension Stems**

John Wong; Jennifer L. Wright; Julia Hochstatter; Amy Miller; Brett Levine; Deborah Hall; Robin Pourzal

Poster No. 1388

**Oxidation And Crosslink Density Of Retrieved Highly Crosslinked Polyethylene Total Hip And Total Knee Inserts After Long-term Implantation**

Aarti Shenoy; Nathaniel Ondeck; Louise O'Connor; Douglas Padgett; Timothy M Wright

Poster No. 1389

**Optimal Bone Preparation For Triple Taper Stems Improves Fixation And Stability: A Biomechanical Analysis**

Zachary Wells; Josué G. Layuno-Matos; Victor A. Shen; Miguel A. Diaz; Peter Simon; Brian Palumbo

Poster No. 1390

**Investigating The Variations In The Electrochemical Behavior Of CoCrMo In Synovial Fluid**

Bailey Bond; Madison Brown; Alayna Robinson; Michael Kurtz; Marc Mihalko; Christopher Holland; John Crockarell; James Guyton; William Mihalko

Poster No. 1391

**Are Ceramic Head Tapers Interchangeable On Stem Tapers From Multiple Manufacturers? A Retrieval And Computational Analysis**

Bhaves Reddy Koppala; Michael Godoy; Julia Hochstatter; Jennifer L. Wright; Brett R. Levine; Robin Pourzal; Hannah J. Lundberg

Poster No. 1392

**Unveiling Cell Migration Mechanisms In Cell Accelerated Corrosion Of Hip Implants Using 3D Bioprinted Scaffolds**

William Reiser; Govindaraj Perumal; Mareeswari Paramasivan; Mohammad Fazle Alam; Mark Barba; Mathew T. Mathew



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-101 Hip and Knee Arthroplasty - Kinematics and Computational Modeling**

Poster No. 1393

##### **Implant Design Do Not Alter Support Moments Nor Contributions To The Support Moments In The Lower Extremity During Stair Negotiation After TKA**

William Mihalko; Alexis Nelson-Tranum; Nuanqiu Hou; Douglas W. Powell; James L. Guyton; John R. Crockarell; Christopher T. Holland; Derek Dixon; Teri P. Ross; Austin Jernigan; Josh Sawiers; Carlos Rivera-Peraza; Jack Jestus; Marcus Ford

Poster No. 1394

##### **Neutral Mechanical Alignment In TKA Elevates Lateral Collateral Ligament Strain: A Cadaveric Study**

Joseph Kitchen; Jarod Richards; John Powers; Peter Quesada; Arthur L. Malkani

Poster No. 1395

##### **The Knee Adduction Moment Measured In Biplane Radiographs Is An Adequate Surrogate Marker For Dynamic Joint Loading During Gait**

Fernando Quevedo Gonzalez; Theofilos Karasavvidis; Cale Pagan; Edward Grabov; Joseph Lipman; Peter Sculco; Cynthia Kahlenberg; Timothy M Wright; David Mayman; Jonathan Vigdorichik; Eytan Debbi

Poster No. 1396

##### **Impact Of The Individual Femoral Degree Of Freedom On The Restoration Of The Trochlea - A Sensitivity Analysis**

Laurent Angibaud; Prudhvi Tej Chinimilli; Leonard Duporte; Faustine Nogaret; Scott Gulbransen; Gerard Giordano; Louis Dagneaux

Poster No. 1397

##### **Tibial Components Placed In Varus Alignment In Primary TKA: A 5-year Survivorship Analysis**

Rohat Bhimani; Whitaker John; Maunil Mullick; Gavin Clark; Serene Lee; Dermot Collopy; Langan S. Smith; Arthur L. Malkani

Poster No. 1398

##### **Navigated Instrumentation Improves Reproducibility Of Laxity Acquisition During A Total Knee Arthroplasty**

Laurent Angibaud; François Boux de Casson; Florian Kerveillant; Leonard Duporte; Gerard Giordano; Louis Dagneaux



## LIST OF POSTERS

Poster No. 1399

**Exploring Intra-articular Pressures In Unicompartmental Knee Arthroplasty To Gauge Accuracy Of Soft-tissue Balancing**

Brandon Gligor; Nirav Mungalpara; Ilakiya Devi; Ashish Shakya; Wedam Nyaaba; Crystal Lin; Michael Redondo; Hristo Piponov; Farid Amirouche

Poster No. 1400

**Comparison Of Tibial Periprosthetic Fracture Risk In Unicondylar Knee Arthroplasty: Robotic-assisted Vs. Conventional Techniques**

Eiden Lami; Nirav Mungalpara; Michael Redondo; Crystal Lin; Avinash Inabathula; Hristo Piponov; Farid Amirouche

Poster No. 1401

**Withdrawn**

**Monday, February 10, 2025**

10:00 AM - 7:00 PM

Room #: North Hall A-C

**PS2-102 Hip and Knee Arthroplasty - Robotics and AI**

Poster No. 1402

**Imu Sensor Devices Integrated Into A Knee Replacement Prosthesis Can Diagnose Implant Loosening; A Cadaveric Study Using An Artificial Intelligence Driven Model.**

Ipalok Mokete; Emma Donnelly; Alex Conway; Ryan Willing

Poster No. 1403

**Evaluating Ligament Laxity Objectives Across Full Range Of Motion In Total Knee Arthroplasty: A Focus On Tibia First Technique**

Laurent Angibaud; Prudhvi Tej Chinimilli; Amaury Jung; James Huddleston

Poster No. 1404

**Anatomic Head Size Combined With Computer Navigation Has Low Dislocation Rates In High Risk Patients**

Joseph H. Basta; William T. Long; Logan Martin; Jeremy Landis; Timothy Iwuoha; William Ross; Austin Elliott

Poster No. 1405



## LIST OF POSTERS

---

**Osteofuture: A Machine Learning Approach To Predict 5-year Total Joint Replacement In Patients With Osteoarthritis Using Baseline Clinical Data**

Ahmed Elgebaly; Atef Abdelrahman Hassan; Rawad Hammad; Hassan Abdalla; Mohamed Imam

Poster No. 1406

**Robotic-assisted Total Knee Arthroplasty Linked To Fewer Postoperative Complications**

Ajay Panda; Wilmer Rodriguez

Poster No. 1407

**Evaluating The Effectiveness Of Chatgpt In Post Tka/tha Clinic Questions: A Comparison With Orthopaedic Surgeons**

Benjamin Mugg; Daniel Ryvkin; wayne moschetti; Peter Schilling; Alexander Orem

Poster No. 1408

**Validation Of Intraoperative Robotic Measurements For Total Knee Arthroplasty Coronal Alignment: A Radiographic Comparison**

Anoop Chandrashekar; Jacob A. Fox; Logan M. Locascio; Martin Faschingbauer; Gregory G. Polkowski; John R. Martin



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-103      Infection - Biomarkers and Outcomes**

Poster No. 1409

#### **Reproducibility Of Seahorse Coupling Assay In Assessing Mitochondrial Response In An In Vivo Prosthetic Joint Infection Model**

Nour Bouji; Ethan Meadows; John Hollander; Elizabeth Stewart; Matthew Dietz

Poster No. 1410

#### **Optimization Of A Fracture-related Infection Rat Femur Fracture Model**

Preeti Muire; Ashley Levack

Poster No. 1411

#### **Expanding The Toolkit: Advancements In Microbial Identification Uncover Missed Pathogens Not Detected In Clinical Cultures For Periprosthetic Joint Infection Diagnosis - A Pilot Study**

Anabelle Visperas; Qiuhe Lu; Camila Caetano; Nikki Meyer; Weiqiang Chen; Suan Sin Foo; Alison Klika; Thaddeus Stappenbeck; Nicolas S Piuze

Poster No. 1412

#### **The Healing Post-arthrotomy Joint Maintains An Alkaline Ph Under Normal And Septic Conditions**

Rachel M. Butler; Asia Winslow; Megan Seraydarian; Caleb Durst; Christopher M. Snyder; Antonia F. Chen; Noreen J. Hickok; Thomas P. Schaer

Poster No. 1413

#### **What We Should Not Assume: A Scoping Review Of The Ph Literature Of The Joint**

Rachel M. Butler; Asia Winslow; Megan Seraydarian; Caleb Durst; Christopher M. Snyder; Antonia F. Chen; Noreen J. Hickok; Thomas P. Schaer

Poster No. 1414

#### **Real-time Confocal Microscopy Assessment Of PAD4-mediated NETosis By S. Aureus On Implants**

Allie Jia Hui Tay; Youliang Ren; Sashank Lekkala; Jason Weeks; Thomas Xue; Ye Shu; Shu-Chi A. Yeh; Edward Schwarz; Chao Xie

Poster No. 1415

#### **Serum Biomarkers Predictive Of Behavioral Outcomes When Examining The Effects Of Poor Sleep Versus Exercise After Overuse Injury**





## LIST OF POSTERS

---

Mary F. Barbe; Parth R. Patel; Abby Keggs; Astha Rajpal; Brendan Hilliard; Megan Van Der Bas; Betsy A. Kalicharan; Paul Hodges; David M. Klyne

Poster No. 1415A

**Serum Albumin And C-reactive Protein Combination Ratios: Effective Markers For Detecting Periprosthetic Joint Infection After Total Knee Replacement**

Don Le; Jason Dayan; Anzar Sarfraz; Alan Dayan

Poster No. 1416

**Evaluating The Utility Of Common Serum Biomarkers For Diagnosing Periprosthetic Joint Infection Following Total Hip Arthroplasty**

Don Le; Jason Dayan; Kory Ngo; Anzar Sarfraz; Alan Dayan



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-104      Infection - Treatment and Therapeutics**

Poster No. 1417

##### **Bisphosphonate-conjugated Sitaflaxacin For Treatment Ofstaphylococcus Aureusinfection Associated With Cortical Bone Screws: A Case Series In A Sheep Model**

Edward Schwarz; Niels Vanvelk; Stephan Zeiter; Karen De Mesy-Bentley; Chao Xie; Frank H. Ebetino; Shuting Sun; Jeffrey Neighbors; Thomas Fintan Moriarty

Poster No. 1418

##### **Establishing An Osteocyte Staphylococcus Epidermidis Model To Reveal Mechanisms Of Chronic Bone And Joint Infections.**

Claudia Siverino; Qi Sun; Dongqing Yang; Bogdan L. solomon; Thomas Fintan Moriarty; Gerald J. Atkins

Poster No. 1419

##### **Evaluating The Minimum Biofilm Eradication Concentration On Different Orthopaedic Implant Materials After Redintroduction To Growth Media**

Elizabeth Stewart; Derek Black; Matthew Dietz

Poster No. 1420

##### **Elucidating Implant-associated Polymicrobial Interactions In Vitro**

Amita Sekar; Fawaz Malick; Nicoletta Inverardi; Dillon Murugesan; Shweta Deepak; Orhun Muratoglu; Ebru Oral

Poster No. 1421

##### **Superior Clinical Results With Intraosseous Vancomycin In Primary Total Knee Arthroplasty**

Kwan J. Park; Austin E. Wininger; Thomas C. Sullivan; Blesson Varghese; Terry A. Clyburn; Stephen J. Incavo

Poster No. 1422

##### **Xylan-chitosan Loaded With Antimicrobial Fatty Acid Reduces S. Aureus Viability In An Acute Model Of Osteomyelitis**

Ezzuddin Abuhussein; Luke Tucker; Joshua Bush; Jessica A. Jennings; Lauren Priddy

Poster No. 1423



## LIST OF POSTERS

---

**Pretreatment With Vancomycin Powder Prevents Biofilm Formation On Marlex Mesh Utilized In Revision Knee Arthroplasty**

Tyler Hoskins; Christina Chao; Mohammed Hammad; Suenghwan Jo; Mathias Bostrom; Alberto Carli

Poster No. 1424

**Pharmacodynamics Of Intra-articular Vancomycin In A Rat Model**

Yingfang Fan; Andrea Rene Joergensen; Mehmet Asik; Fawaz Ben Malick; Aybike Reyhanli; Keita Fujino; Orhun Muratoglu; Maiken Stilling; Ebru Oral

Poster No. 1425

**Effect Of Growth Media On Antibiotic Stability And Activity Against Staphylococcal Biofilms**

Fawaz Ben Malick; Amita Sekar; Kathryn Daffinee; Mehmet Asik; Jean Yuh; Peyton Tierney; Orhun Muratoglu; Kerry Laplante; Ebru Oral

Poster No. 1426

**Effect Of Ultraviolet Radiation On The Sterility Of Bacteriophage-Encapsulated Biodegradable Microspheres**

Angus C. Brooks; Adalia Brixen; Cora Kosnik; Samantha R. Gardner; Samuel Donn; Jerril P. Jacob; Heidi B. Kaplan; Catherine G. Ambrose

Poster No. 1427

**A Tobramycin Loaded Wound Protectant Effectively Manages Bioburden In A Large Animal Model Of Long Bone Open Fracture Infection**

Annika Gilmore; Helena Vu; Jacob Adams; Korinna Hylan; Brooke Kawaguchi; Richard Epperson; Nicholas Ashton; David Armbruster; David Rothberg; Dustin Williams

Poster No. 1428

**Investigating The Antibacterial Properties Of Fibroadipogenic Progenitors And Their Role In Infection Control**

Aboubacar Wague; Mitsuhiro Nishizawa; Justin Lau; Jacob Matityahu; Kazuhito Morioka; Xuhui Liu; Chelsea Bahney; Brian Feeley



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-105      Biomaterials - Controlled Release**

Poster No. 1429

#### **Controlled Delivery Of Deferoxamine In A Subcutaneous Model Of Semi-orthotopic Bone Formation**

Matthew Fainor; Aira Bazaz; Robert Mauck; Harvey Smith; Sarah Gullbrand

Poster No. 1430

#### **Latent TGF- $\beta$ Scaffolds Yield Neocartilage With Native-matched Properties While Mitigating Hypermetabolism**

Yifan Peng; Peter B. Joo; Tianbai Wang; Sedat Dogru; Yuqing Xin; Michael Albro

Poster No. 1431

#### **An Assessment Of The Diffusion Kinetics Of Metformin From Glycyrrhizin-Metformin Lotion**

Celina Zhao; Derek Maloney; Jianying Zhang; Vasyl Pastukh; Soichi Hattori; James Wang

Poster No. 1432

#### **HPLC Analysis Of Metformin Lotion Permeation: A Novel Transdermal Approach For Tendinopathy Treatment**

Jianying Zhang; Derek Maloney; Vasyl Pastukh; Soichi Hattori; MaCalus Hogan; James Wang

Poster No. 1433

#### **A Calcium Sulfate/hydroxyapatite Biomaterial As A Carrier For The Controlled Delivery Of Bone Morphogenic Protein-2 In Spinal Fusion: A Pilot Study In Rabbits**

Deepak Raina; Hadis Alidadi; Stefan Zwingenberger; Lars Lidgren; Magnus Tagil

Poster No. 1434

#### **Heparin As A High Affinity Carrier To Improve Tgf- $\beta$ Penetration Into Engineered Cartilage**

Sedat Dogru; Alex B. Fudenna; Jason Gashi; Michael Albro

Poster No. 1435

#### **Designing Poly(alpha Ketoglutarate) Microparticles To Modulate Osteoblast And Osteoclast Activity**

Margaret A. Dugoni; Arezoo Esrafili; Sierra Bogner; Emily Mahadevan; Madhan Mohan Chandra Sekhar Jaggarapu; Sanmoy Pathak; Jennifer Westendorf; Abhinav Acharya; Julianne Holloway

Poster No. 1436



## LIST OF POSTERS

---

**Thermoresponsive Hydromorphone Prodrug Provides Sustained Skeletal Pain Relief With Minimal Adverse Effect**

Xin Fu; Xiaoqing Du; Shahnaz Rahimi; Eleanor Ransdell-Green; Dong Wang

Poster No. 1437

**Temporal Zinc Release From Hydrogels: Effects On Mechanics, Metabolic Activity, And Gene Expression**

Xuanbei Pan; Stephen Ching; Hisham Omar; Paulina Bargalló González Lugo; Michael W. Hast

Poster No. 1438

**Enhancing Prosthetic Joint Infection Management With Aptamer-targeted Nanoparticles**

Zahra Eskandari; Amita Sekar; Mehmet Asik; Keita Fujino; Orhun Muratoglu; Ebru Oral

Poster No. 1439

**Withdrawn**



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-106      Biomaterials - Orthopaedic Implant Materials**

Poster No. 1440

#### **A Novel Rat Caudal Bone Metastasis Resection Model For Therapeutic Implant Screening**

Ateeque Siddique; Derek Rosenzweig; Michael Weber

Poster No. 1441

#### **The Expanding Ratio For Swelling Copolymer Suture Anchors Is Critical For Osteointegration: An In-vivo Analysis In A Sheep Model**

Mehrangiz Taheri; Amir Sadighi; Thomas Schaer; Madeline Boyes; Sorin Siegler

Poster No. 1442

#### **Effect Of Length Of Rod Engagement On Set Screw Failure Using The Axial Slip Test**

Arin Ellingson; Ashley Abbott; Cale J. Hendricks; Matthew MacEwen; David W. Polly Jr.

Poster No. 1443

#### **Systemic Administration With Antibiotics Having Accretion To Hydroxyapatite Prevents Infection Of Hydroxyapatite-coated Implants**

Jintian Huang; Magnus Tagil; Lars Lidgren; Deepak Raina

Poster No. 1444

#### **Self-assembly And Antimicrobial Properties Of Carbobenzyloxy-modified Amino Acids**

Bingyun Li; Alexa Sowers

Poster No. 1445

#### **RNA Sequencing Reveals Enhanced Osteogenesis Of Human Mesenchymal Stem Cells With Physiologic Load-induced Strain Of 3d Printed Truss Elements**

Se-Hwan Lee; Ali Kiapour; Ellen Zhang; Lewis Harrison; Jarod Oldham; Matthew Begley; Jesse Hunt; Robert Mauck; Su Chin Heo

Poster No. 1446

#### **Two-year Outcomes Of A Novel, Modular Acetabular System In Total Hip Arthroplasty**

Sophia Antonioli; Zoe Alpert; Anzar Sarfraz; Catherine DiGangi; Vinay Aggarwal

Poster No. 1447



## LIST OF POSTERS

### **Two-year Outcomes Of A Novel Dual-mobility System In Revision Total Hip Arthroplasty**

Sophia Antonioli; Zoe Alpert; Daniel Waren; Nihir Parikh; Chad Krueger; Ran Schwarzkopf

Poster No. 1448

### **Antibacterial Electrophoretically-loaded Titania Nanotubes On Titanium Implants Do Not Prevent Osseointegration**

Julia Fischer; Deborah J. Hall; Meghan M. Moran; Peter H. Pennekamp; Adrienn Markovics; Markus A. Wimmer; John L. Hamilton

Poster No. 1449

### **Effects Of Co<sup>2+</sup> And Cr<sup>3+</sup> On Energy Metabolism In Murine Bone Marrow-Derived Macrophages**

Jesse Corbin; Eric A. Lehoux; Isabelle Catelas

Poster No. 1450

### **A Study On Standalone Alif Integrated Fixation Design Parameters Using Particle-based Simulations**

Mike Arun; Katie Ruehlicke; Steven Leong; Chris Maldonado; Alex Turner

Poster No. 1451

### **Withdrawn**

Poster No. 1452

### **Comparison Of Posterior Wall Acetabulum Fracture Stabilization Methods: A Biomechanical Study**

William H. Gillon; Scott Polansky; Patrick Bergin; Loren Latta; Francesco Travascio; George Russell Jr.; John Morellato; Dillon O'Neill

Poster No. 1453

### **When Making Antibiotic Spacers: Mixing Order Matters! 'liquid-first' Mixing Method Significantly Increase Vancomycin Elution From Polymethylmethacrylate**

Mohammed Hammad; Christina Chao; Mathias Bostrom; Alberto Carli

Poster No. 1454

### **Determination Of Electrochemical Risk Factors Within Additively Manufactured CoCrMo Implant Alloy**

Amandine Impergre; Nick Hantke; Julia Hochstatter; Alfons Fischer; Jan Sehrt; Robin Pourzal

Poster No. 1455

### **Biomechanical Assessment Of Pilot Hole Under Sizing On The Viscoelastic Behaviorof Trabecular Bone: A Finite Element Study**

Ahmad B. Ghazijahani; Mohadese Rajaeirad; Alireza Rouyin; Michael S. Andersen; Mohammadjavad (Matin) Einafshar; Ali Kiapour



## LIST OF POSTERS

---

Poster No. 1456

**Biomechanical Study Evaluating The Torsional Resistance Of Stacked One Third (1/3) Tubular Plates**

Christopher T. Ling

Poster No. 1457

**Investigation Of In Situ Electrical Stimulation For Enhancing Spinal Cord Injury Repair**

Xi Wang

Poster No. 1458

**A Proprietary Surface Roughness Can Improve The Osteoblastic Gene Expression and Osteointegration On Implant Surfaces**

Ali Kiapour; Xionan Xin; Elie Massaad; David Rowe

Poster No. 1459

**Dental Cement Augmentation Increases Pullout Strength With Comparable Removal Torque For Lateral Mass Screws**

Javier Castro; James M. Mok; Karl C. Bruckman; Calvin Chan; Anna B. Karnowska; Harsh Wadhwa; Olivia Okoli; Jayme Koltsov; Serena Hu

Poster No. 1460

**In-vitro Study On Neurotoxicity Associated With Hip Implants Under Inflammatory And Infectious Conditions**

Amanda S. Weis; Mareeswari Paramasivan; Vanaja Narayanaswamy; Mark Barba; Mathew Mathew

Poster No. 1461

**Local Toxicity Risks Of Implant-generated Metal Ions On Human Synoviocytes: An In Vitro Investigation**

Katherine D'Sylva; Mareeswari Paramasivan; Mathew Mathew; Mark Barba





## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-107      Biomaterials - Repair/Replacement of Hard Tissues**

Poster No. 1462

#### **A Novel Weight Bearing Rabbit Shoulder Model For In Vivo Testing Of Implants For The Treatment Of Osteochondral Lesions**

Sam Si-Hyeong Park; Shu Qiu Li; Marc Grynepas; Robert Pilliar; Rita Kandel

Poster No. 1463

#### **Use Of A Biomimetic Polymer Adhesive For Healing Tibia Bone Defects In Rats**

Vasyl Pastukh; Jianying Zhang; Michael Copeland; Soichi Hattori; Derek J. Maloney; James H-C. Wang

Poster No. 1464

#### **The Immunomodulatory Cytokine/growth Factor Properties Of Evoke Demineralized Bone Fibers To Enhance Osteoinductive Potential**

Derek C. Dashti; Candice Chen; Matthew Hinson; Nathaniel T. Remlinger

Poster No. 1465

#### **Filling The Gaps: Evaluation Of The In Vitro Osteogenic Potential Of Bone Marrow MSCs Seeded At Different Cell Densities After Proliferation Arrest With And Without ABCB5<sup>+</sup> MSC Supplementation**

Jakob Hofmann; Tim Bewersdorf; Ulrike Sommer; Christian Schamberger; Gerhard Schmidmaier; Tobias Grossner

Poster No. 1466

#### **Bone Quality And Biologic Environment With GPNMB Orthobiologic In Rodent Spinal Fusion Model**

Mark D. Villers; Jared Hinton; Andrew Alejo; Ernesto Solorzano; Dean Spyres; Gabrielle Robinson; Trinity Kronk; Scott McDermott; Fayeze Safadi



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-108      Biomaterials - Repair/Replacement of Soft Tissues**

Poster No. 1467

#### **Loading Duration Of Cyclic Tensile Strain Affects The Vascular Morphology Of 3D Microvascular Constructs**

Samuel Lester; Anna Burger; Alister Wong; Adam Rauff; Kimberly Jones; Angela Lin; Robert Guldberg

Poster No. 1468

#### **Pcl Reinforced Composite Biomaterials For Use In Meniscal Tissue Engineering**

Anthony J. El Kommos; Alicia Jackson; Fotios Andreopoulos; Francesco Travascio

Poster No. 1469

#### **Nanomechanically Tunable Biomaterials For Directed Myotendinous Junction Tissue Differentiation**

Calvin L. Jones; Jordan T. Daw; Taylor G. Izzard; Sophia Theodossiou

Poster No. 1470

#### **Exploring Polyacrylamide Gels For Joint Preservation: Rheological And Frictional Properties Across Concentrations**

Mohammed AbuAlia; Markus Wimmer; Thomas Schmid

Poster No. 1471

#### **Withdrawn**

Poster No. 1472

#### **Dual Peptide Functionalized Alginate Hydrogels To Control Msc Therapeutic Potency For Cell-mediated Matrix Repair**

Xiaohong Tan; Liufang Jing; Mohammadjafar Hashemi; Sydney Neal; Munish Gupta; Jacob Buchowski; Lori A. Setton; Nathaniel Huebsch



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### PS2-109      Biomaterials - Scaffolds

Poster No. 1473

##### **Development Of A Gene-Activated Composite Biomaterial For Enhanced Load-Bearing And Zonal Articular Cartilage Regeneration**

Hadeel Abu Shaqrah; Franz Acker Lobianco; John O'Byrne; Fergal J. O'Brien; Tom Hodgkinson

Poster No. 1474

##### **Advanced Citrate-based Anionic Scaffolds For Growth Factor Binding In Bone Regeneration**

Se-Hwan Lee; Ruqiang Lu; Zizhao Li; Angelina Mauriello; Lindsey Burton; Katie Sikes; Lynn Pezzanite; Drew Koch; Kevin Labus; Benjamin Gadomski; Jeremiah Easley; Richard Tran; Su Chin Heo

Poster No. 1475

##### **Calcium Phosphate Deposition On Electrospun Fibers As A Function Of Simulated Body Fluid Formulation**

Joshua Kupfer; Ella Starr; Grace Schwarz; Julianne Holloway

Poster No. 1476

##### **3d Bioprinting Of Bioactive Collagen/hydroxyapatite Scaffolds For Bone Regeneration**

Filip Mrkonjic; Nicolas Löwe; Jintian Huang; Deepak Raina; Magnus Tägil

Poster No. 1477

##### **A Pro-chondrogenic, Multilayered, Reinforced Collagen-based Scaffold Fabricated Using Melt-electrowriting And Electrospinning To Serve As A Biomimetic Template For Meniscus Regeneration**

Francisco José Calero Castro; Golestan Salimbeigi; Sally Ann Cryan; Fergal O'Brien

Poster No. 1478

##### **Rates Of Achieving Meaningful Outcomes And Predictors Of Clinical Failure 5-years After Undergoing Microfracture Augmented With Allograft Cartilage For Treatment Of Hip Chondral Defects**

Edward C. Beck; Caleb D. Puckett; Ayobami S. Ogunsola; Mina Entessari; Allston Stubbs

Poster No. 1479

##### **Regenerative Capabilities Of Rat Tenocytes In A 2d Monolayer Vs 3d Nanofiber Scaffold**

Daniella Davia; Pooja Swami; Henintsoa Fanjaniaina Andriamifidy; Haixiang Liang; Daniel Grande



## LIST OF POSTERS

---

Poster No. 1480

**Bone Scaffold Implants For Tissue-engineered Patient-specific Mandibular Reconstructions -design, Modeling, And Testing Across In Silico, Ex Vivo, And In Vivo Environments**

Ben Ferguson; Ali Kiapour; Jeffrey Hajibandeh; Jonathan R. Clarck; Qing Li

Poster No. 1481

**Development Of A 3d In Vitro Cartilage Stress Model Using Gelma Scaffolds To Investigate Chondrocyte Responses To Mechanical Compression**

Seth L. Sherman; Wenteh Chang; Stewart A. Bryant

Poster No. 1482

**Biofabrication Of Cell-laden Bone-like Tissue Via Nanoscale Mineralization Of Collagen For Bone Regeneration And Bone On-a-chip Applications**

Luiz Bertassoni

Poster No. 1483

**Anisotropic Mechanical Properties And Its Role In Biofabricated Cartilage Implants**

Mylene de Ruijter; Lennard Spauwen; Patrick van Veenendaal; Roel J.H. Custers; Jos Malda



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-110 Education and Outreach - Clinical Education**

Poster No. 1484

#### **A Network Meta-analysis Of Rehabilitation Strategies To Maximize Clinical Outcomes In Individuals With Knee Osteoarthritis**

Moeka Yokoyama; George Ross Malik; Fabrisia Ambrosio; Hirotaka Iijima

Poster No. 1485

#### **Withdrawn**

Poster No. 1486

#### **Comparing Appropriate Use Criteria With Chatgpt-4o Recommendations On Treating Distal Radial Fractures**

Kareem S. Mohamed; Alexander Yu; Christoph A. Schroen; Akiro H. Duey; James Hong; Ryan Yu; Suhas Etigunta; Jamie Kator; Michael R. Hausman

Poster No. 1487

#### **Impact Of Orthopaedic Surgery Interest Group Mentorship Program On Perceptions Of And Preparedness For Orthopaedic Surgery Residency**

Maya Moore; Levi Travis; Jonathan Weinerman; Dr. Giselle Hernandez

Poster No. 1488

#### **Management Of Rotator Cuff Pathology: Comparing Appropriate Use Criteria With Chatgpt-4 Recommendations**

Akiro H. Duey; Kareem S. Mohamed; Christopher A. White; Timothy Hoang; Bashar Zaidat; Nancy Shrestha; Katina Nietsch; Justin E. Tang; PAUL J. CAGLE; Jun S. Kim; Samuel K. Cho

Poster No. 1489

#### **Improving Operating Room Efficiency In A Medium Size Rural Community Hospital Using N Positive Deviance Seminars**

Paul Beaulé; Nicholas Nucci; Koorosh Kashanian; Simon Garceau; Andrew Seely; Stephane Poitras; Ariane Parisien



## LIST OF POSTERS

---

**Monday, February 10, 2025**

10:00 AM - 7:00 PM

Room #: North Hall A-C

**PS2-111      Education and Outreach - K-12 Education and Outreach**

Poster No. 1490

**Inspiring The Next Generation Of Orthopaedic Surgeons Via A Program For Underrepresented High School Students**

Rishi Trikha; Nicole Hung; Andrew Jensen; Alexandra Stavrakis; Nicholas Bernthal



## LIST OF POSTERS

---

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-112      Imaging - Hard Tissue**

Poster No. 1491

#### **Exploring The Utility Of Quantitative MRI Techniques To Monitor Changes In Osteonecrosis Of The Femoral Head Following Core Decompression**

Erick O. Buko; Edward Y. Cheng; Casey P. Johnson

Poster No. 1492

#### **Weighted Central Direction As Novel Approach In Determining Safe Bone Corridors: An Application To Pelvic Instrumentation.**

Andre Mira; Brad Chauvin; Shane Barton; Giovanni Solitro

Poster No. 1493

#### **Predicting Femoral Neck Screw Pullout Strength Using DXA And Novel Assessments Of Bone Microarchitecture**

Jarod Moyer; Richard Behlmer; Joshua D. Roth; Herman Feller; Diane Krueger; Gretta Borchardt; Sam Mosiman; Paul Whiting

Poster No. 1494

#### **Radiomic Correlations Of Trabecular Bone Between MRI & CT**

Kevin Koch; Matthew Koff; Ryan Breighner; Fernando Quevedo Gonzalez; Hollis Potter



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-113      Imaging - Image Analyses**

Poster No. 1495

#### **Ct Imaging Evaluation For Quantification Of Paraspinal And Hip Muscles In Patients With Osteonecrosis Of The Femoral Head**

Hironori Yamane; Hyonmin Choe; Koki Abe; Hiroyuki Ike; Yuta Hieda; Yota Katsuyama; Masashi Shimoda; Yutaka Inaba

Poster No. 1496

#### **Functional PET-MRI In Symptomatic Cam FAI Examining The Crosstalk Between Bone And Cartilage**

Mary Sisson; Gerd Melkus; Kawan S. Rakhra; Reggie Taylor; Katie Dinelle; George Grammatopoulos; Sasha Carsen; Ariane Parisien; Paul Beaulé

Poster No. 1497

#### **Validation Of 3D Segmentation Model To Remove Total Hip Arthroplasty Metal Implants From Bone**

Melissa Gonzalez; Melanie Caba; Bradley Nolan; Laura Scholl; Matthew Thompson; Varun Chandra

Poster No. 1498

#### **Comparison Of Plain Film Radiographs And EOS Imaging In Patients With Malalignment**

Caleb J. Bischoff; Brett D. Crist; Mauricio Kfuri; Dana L. Duren

Poster No. 1499

#### **Proximal Femur Shape Variations Within A Patient Cohort With Cam Femoroacetabular Impingement**

Cameron Gerhold; Philip Malloy; Omair Kazi; Jorge Chahla; Shane Nho; Steven Mell; Catherine Yuh

Poster No. 1500

#### **AI Can Accurately Assist Cartilage Segmentation Of 3d T2\* Gre Sequence In 7t High-resolution 3d Mri**

Eisa Hedayati; Abdul Wahed Kajabi; Collin Steinberger; Karsten Knutsen; Abhinav Lamba; Luke Tolefson; Gregor Metzger; Robert LaPrade; Jutta Ellermann

Poster No. 1501

#### **Increasing The Efficiency Of Osteonecrosis Research: Automated Segmentation And Micro-CT Morphometry Analysis Of Necrotic Bone In Small And Larger Animal Models**

Salar Sanati; Vishal Gokani; Michael Wilde; Joonoh Lee; Harikrushnaa Srikanth; Venkata Repaka; Chi Ma; Yinshi Ren; Daniel Trautmann; Harry Kim





## LIST OF POSTERS

Poster No. 1502

**Identifying TMJ Disorder Morphological Risk Factors Via Explainable Deep Learning And Biomechanical Modeling**

Shuchun Sun; Pei Xu; Nathan Buchweitz; Cherice Hill; Farhad Ahmadi; Marshall Wilson; Angela Mei; Benedikt Sagl; Elizabeth H. Slate; Janice S. Lee; Yongren Wu; Hai Yao

Poster No. 1503

**Auto-segmentation Of Knee CT Scans Is More Accurate In Older Patients Compared To Young Healthy Adults**

Emily C. Gray; Abdulganeey Olawin; Tom Gale; Raghav Ramraj; Emelia Krakora; MaCalus Hogan; William Anderst

Poster No. 1504

**Analyzing Collagen Fibrils In Tendon: Development Of A Semi-automated Image Analysis Tool For SEM Images**

Kelsey Y. Gsell; Samuel P. Veres; Laurent Kreplak

Poster No. 1505

**The Sclerotic Hip Index In Patients With Sickle Cell Disease (SHIPS)**

Justin Fernicola; Hannah J. Kareff; Wilfrido Castillo; Carlos Salazar; Zeynep Seref-Ferlengez; Carlos Alvarado

Poster No. 1506

**Comparison Of Decalcification Solutions To Optimize Demineralization Rate Of Rabbit Knee Joint Tissues**

Kristine Fischenich; Terrin Geohring; Mike Zuscik; Karin Payne

Poster No. 1507

**Can A Conversational Artificial Intelligence Model Keep Up With Clinicians? Assessing Inter-rater Reliability In Fracture Identification**

Aliyah N. Walker; Om Patel; J.B. Smith; Samuel K. Simister; Soham Choudhary; Michael Seidu; Shannon Tse; David Dallas-Orr; Hania Shahzad; Augustine M. Saiz; Zachary C. Lum

Poster No. 1508

**Bone Orientation Of Repair Tissue Is Altered After Growth Plate Injury Treated With A 3D-Printed Biomimetic Composite**

Kristine Fischenich; Michael David; Laurel Stefani; Boyuan Liu; Ana Ferreira Ruble; Virginia Ferguson; Nancy Hadley-Miller; Stephanie Bryant; Karin Payne



## LIST OF POSTERS

Poster No. 1509

**Femoral Version And Lower Extremity Alignment**

Kwan J. Park; Jennifer Liu; Thomas C. Sullivan; Haitham Awdeh; Terry A. Clyburn; Timothy S. Brown; Stephen J. Incavo

Poster No. 1510

**Bioorthogonal Labeling And Imaging Of Proteoglycan Synthesis For Enhanced Monitoring Of Cartilage Regeneration**

Yeter Dilek; Katrin Münzebrock; Vera Bruggink; Kelly Warmink; Jaqueline Lourdes Rios; Caroline O'Riordan; Joao P. Marques Garcia; Laura Creemers

Poster No. 1511

**Detecting Pedicle Screw Breach: A Novel, Automated Computer Vision Algorithm**

Benjamin N. Groisser; Austin Kaidi; Gregory S. Kazarian; Ankush Thakur; Howard H. Hillstrom; Akshitha Adhiyaman; Olivia C. Tracey; Colson P. Zucker; Jenna L. Wisch; Matthew E. Cunningham; Michael Timothy Hresko; Ram Haddas; John S. Blanco; Douglas N. Mintz; Ryan E. Breighner; Jessica H. Heyer; Roger F. Widmann

Poster No. 1512

**A Resource-Efficient Approach For Rapid Detection Of Anatomical Regions From CT Scans**

Franko Hrzic; Mohammadreza Movahhedi; Ata M. Kiapour

Poster No. 1513

**Real-time Tracking Of Patellar Motion Using Automated Segmentation And Dynamic 3d Mri**

Azadeh Sharafi; Mehran Baboli; Maggie Fung; Kevin Koch

Poster No. 1514

**Quantitative Evaluation Of Fatty Infiltration In Rotator Cuff Muscle By Binarization Of Mr Images**

Ryota Kojima; Yoshikazu Kida; Tsuyoshi Sukenari; Kenta Takatsujji; Kenji Takahashi

Poster No. 1515

**An Automated MicroCT-based Methodology For Quantification Of Bridging Bone In A Rodent Spine Fusion Model**

James S. MacLeod; David Hiltzik; Andrew Furman; Avani Chopra; Frances Akwuole; Yianni Bakaes; Chris Sollenberger; Wellington Hsu; Romie Gibly; Erin Hsu; Stuart Stock

Poster No. 1516

**Use Of Fluid:fat Ratios In Mri-based Evaluations Of Knee Effusions Improve Diagnosis Accuracy In A Pediatric Cohort**



## LIST OF POSTERS

---

Elizabeth Silvestro; Iman Naqvi; Jie Nguyen; Wondwossen T. Lerebo; Flaura K. Winston; Raymond W. Sze; Michael Hast

Poster No. 1517

**Frequency Regularization Neural Attenuation Fields For Sparse-view Cbct Reconstructions**

Chunjie Xia; Nan Zheng; Tsung-Yuan Tsai

Poster No. 1518

**Development Of AI-Based Rigo Classification System For AIS**

Natalie Schmidt; Gregory Johnson; Andrew Nencka; Tugan Muftuler; Adam Thiessen; Xue-Cheng Liu

Poster No. 1519

**Accuracy Of Tibial Tubercle Osteotomies**

Andrew Phillips; Erik Haneberg; Eric Cotter; Johnathon McCormick; Alejandro Espinoza Orias; Brian Cole; Adam B. Yanke

Poster No. 1520

**Automated Quantitative Histomorphometric Analysis Of Osteonecrosis Of The Femoral Head:a Deep Learning Approach**

Joonoh Lee; Vishal Gokani; Harikrushnaa Srikanth; Salar Sanati; Michael Wilde; John Carter; Ahan Mistry; Venkata Rapaka; Daniel Trautmann; Garrett Croley; Phillip Taboada; Harry Kim



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-114      Imaging - Soft Tissue**

Poster No. 1521

#### **SHG Microscopy As A Novel Assessment Of Nerve Injury In Upper Extremity Trauma: A Human Cadaver Study**

Christoph A. Schroen; Philip Nasser; Damien Laudier; PAUL J. CAGLE; Michael R. Hausman

Poster No. 1522

#### **3D Full-field Residual Strain Distribution Across The Osteochondral Junction During Osteoarthritis Progression**

Sarah Davis; Aikaterina Karali; Marta Roldo; Gordon Blunn

Poster No. 1523

#### **A Low-Cost Optical Phantom For Vis-NIR Fiber Optic Probe Spectroscopy And Mechanical Validation Of Cartilage**

Shu-Jin Kust; Chetan Patil; Nancy Pleshko

Poster No. 1524

#### **Lead-based Nanoparticle Contrast Agent For Post-mortem Vascular MicroCT Imaging**

Sara McBride-Gagy; Anna Le; Kyan Ho; Samuel Stealey; Madhushika Elabada Gamage; Jacob Peri; Kell Sprangel; Silviya Zustiak; Steven Buckner; Paul Jelliss

Poster No. 1525

#### **Contrast Enhanced Micro-CT Imaging Of The Nucleus Pulposus To Study Intervertebral Disc Degeneration In Animal Models**

Madison M. Buckles; Mohammad Y. Ansari



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-115 Intervertebral Disc - Diseases and Disorders**

Poster No. 1526

#### **Obesity And Type 2 Diabetes Enhance Intervertebral Disc Degeneration Progression And Nociception In A Mouse Tail-loop Model**

Clara Ruiz-Fernández; Jordy Schol; Luca Ambrosio; Takayuki Warita; Shota Tamagawa; Hazuki Soma; Daisuke Sakai; Masato Sato; Masahiko Watanabe

Poster No. 1527

#### **Understanding The Physiological Behaviour Of Disc Cells In An In Vitro Imitation Of The Healthy And Degenerated Disc Niche**

Joseph Snuggs; Shaghayegh Basatvat; Exarchos Kanelis; Josette van Maanen; Leonidas Alexopoulos; Markus Templin; Marianna Tryfonidou; Christine Le Maitre

Poster No. 1528

#### **Association Between Mri Findings And Inflammatory Symptoms In Non-specific Chronic Low Back Pain**

Conor O'Neill; Katharina Ziegeler; Lianne S. Gensler; Thomas Link; Colin Roach; Aaron Scheffler; Aaron Fields; Noah Bonnheim; Abel Torres-Espin; Jeffrey Lotz; Trisha Hue; Mark Wallace; Scott Fishman; Patricia Zheng

Poster No. 1529

#### **Serum And Nutrient Deprivation Induce Autophagic Flux And Caspase Dependent Apoptosis In Nucleus Pulposus Cells**

Young-Yul Kim

Poster No. 1530

#### **Disc Degeneration Proceeds With Similar Genotypic And Phenotypic Changes That Are Preserved Across Different Disc Locations And In Different Degeneration Models**

Matthew Goodwin; Regis O'Keefe; Miradili Mulati; Matthew Silva; Shambhavi Bhagwat; Brian Van Tine; Jie Shen

Poster No. 1531

**Withdrawn**



## LIST OF POSTERS

---

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-116 Intervertebral Disc - Growth, Development and Aging**

Poster No. 1532

##### **Aging Intervertebral Disc Reveals Upregulation In Immune Pathways And Activated Immune Cell Populations**

Mark (Min Kyu) Kim; Troy Anderson; Joanna Smeeton; Nadeen Chahine

Poster No. 1533

##### **Runx1 Overexpression Induces And Accelerates Intervertebral Disc Degeneration By Promoting Nucleus Pulposus Cell-senescence.**

Martha Elena Diaz Hernandez; Takanori Fukunaga; Changli Zhang; Hicham Drissi

Poster No. 1534

##### **Murine Intervertebral Disc Mechanical Analysis Reveals Tissue And Region-Specific Changes With Age**

Leonardo Campos; Mark (Min Kyu) Kim; Hagar Kenawy; Nadeen Chahine

Poster No. 1535

##### **A New Classification Of Intervertebral Disc Degeneration Using Artificial Intelligence**

Hisataka Suzuki; Kutsuhisa Yamada; Terufumi Kokabu; Ryo Itoga; Masashi Tsujino; Takahiko Hyakumachi; Yasushi Yanagibashi; Norimasa Iwasaki; Hideki Sudo



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-117 Intervertebral Disc - Injury, Healing and Pain**

Poster No. 1536

##### **Can Targeting Ccr<sup>2+</sup> Monocytes Impact Disc Herniation Induced Chronic Pain?**

Jasmine Xiao; Yi Zhang; Brock Manley; Mary Wein; Katie Cheng; Yuan Xing; Mia Shen; Nina James; Sun-Sang J. Sung; Li Jin; Xudong (Joshua) Li

Poster No. 1537

##### **Effect Of Confined Bioreactor Culture On Human Degenerated Nucleus Pulposus Explants**

Yeter Dilek; Jie Du; Stijn V. Breda Vriesman; Joao P. Marques Garcia; Laura Creemers

Poster No. 1538

##### **Raloxifene Treatment Alleviates Aging-induced And Protects From Injury-induced Intervertebral Disc Degeneration And Pain Sensitivity In A Sex-dependent Manner**

Neharika Bhadouria; Tori Kroon; Janai Augustin; Michael Lemonick; Joana Almeida; Jonathan J. Huang; Nilsson Holguin

Poster No. 1539

##### **Upregulation Of Glucose Transporter Type 1 In Degenerating Lumbar Disc After Annulus Fibrosus Injury**

Inesha P. A. Wiseman; Jake Dourdourekas; Ishani Patel; Lyla Handoklow; Ferris Handoklow; Sharon G. Orozco; KHALED ABOUSHAALA; John Martin; Howard S. An; Dino Samartzis; Denise Iliff; Jennifer Gansau; James Iatridis; Alon Lai; Ana V. Chee



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-118 Intervertebral Disc - Structure, Function and Mechanics**

Poster No. 1540

##### **Comparative Analysis Of Deep Learning Approaches For Quantifying Histological Differences In Intervertebral Discs**

Lyla A. Handoklow; Matthew Trone; Jay Swayambunathan; Scott Simmons; William R. Jeck; Julia Visgauss; Robert Bowles; Ana Chee; John Martin

Poster No. 1541

##### **Development Of A Generalized Poroelastic Annulus Fibrosus Material Model Including Damage**

Scott Lovald; Courtney Petersen; Britta Berg-Johansen

Poster No. 1542

##### **Intervertebral Disc Injury Disrupts Biomechanical Properties More Than Aging In A Mouse Lumbar Spine Ex Vivo Model**

Neharika Bhadouria; Justin Tiao; Angelica Baburova; Charu Jain; Antonia Demopoulos; Philip Nasser; Jennifer Weiser; Andrew Hecht; James Iatridis

Poster No. 1543

##### **Compositional Mapping Of Rat Intervertebral Disc Endplate And Interface Regions Utilizing Fourier Transform Infrared Spectroscopy Imaging**

Maho Koga; Juan Diego Carrizo; Brianna Przywozny; Nadeen Chahine; Helen H. Lu

Poster No. 1544

##### **Age-related Lumbar Disc Degeneration Is Associated With Increased Glucose Transporter 1 In A Rat Model**

Lyla A. Handoklow; Ferris Handoklow; Jake Dourdourekas; Ana Chee; John Martin

Poster No. 1545

##### **Effects Of Microarchitecture Remodeling On Disc-bone Interface Micromechanics In A Smoke-exposure Rat Model**

Hui Li; Yang Zhangke; Joshua Kelley; Tong Ye; Charles Alan Reitman; Hai Yao; Zhaoxu Meng; Yongren Wu

Poster No. 1546

##### **An Image Autoencoder For Learning Latent Disc Geometry From Segmented Lumbar Spine MRI**





# 2025 ANNUAL MEETING

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February 7 – 11, 2025 | Phoenix, Arizona



## LIST OF POSTERS

---

Mattia Perrone; John Martin



## LIST OF POSTERS

**Monday, February 10, 2025**

10:00 AM - 7:00 PM

Room #: North Hall A-C

**PS2-119 Intervertebral Disc - Treatment and Therapeutics**

Poster No. 1547

**Withdrawn**

Poster No. 1548

**The Impact Of Hydrogel Carrier Choice In The Regenerative Potential Of Cell-mediated Disc Regeneration: A Canine Model**

Jordy Schol; Takayuki Warita; Kosuke Sako; Erika Matsushita; Yoshihiko Nakamura; Daisuke Sakai; Masato Sato; Masahiko Watanabe

Poster No. 1549

**Transcriptional Screening Of Novel Bovine Annulus Fibrosus Progenitor Gene Signatures In Tunable Hydrogels**

Levon Rodriguez; Woojin Han; Robert Sebra; James C. Iatridis

Poster No. 1550

**Lumbar Microdiscectomy Followed By Intradiscal Injection Of Autologous Bone Marrow Aspirate Concentrate Increase Disc Hydration And Reduce Patient Reported Disability And Pain**

Alikhan Fidai; Jessica Berger; Ashley Cardenas; Blake Boadi; Jonathan Dyke; Ibrahim Hussain; Lawrence Bonassar; Roger Hartl

Poster No. 1551

**Gpt-4 As A Source Of Patient Information For Cervical Disc Arthroplasty: A Comparative Analysis Against Google Web Search**

Paul G. Mastrokostas; Leonidas E. Mastrokostas; Ahmed K. Emara; Ian J. Wellington; Elizabeth Ginalis; Jonathan F. Dalton; John K. Houten; Amrit S. Khalsa; Ahmed Saleh; Afshin E. Razi; Mitchell K. Ng

Poster No. 1552

**Chondroitin Sulfate Proteoglycan Supplementation Stimulates Anabolic Turnover In Bovine And Human Nucleus Pulposus Cells Under Physiologically Relevant Culture Conditions In Vitro**

Kunihiko Miyazaki; James Kang; Shuichi Mizuno

Poster No. 1553



## LIST OF POSTERS

---

**A Novel Approach To Annulus Fibrosus Repair Via Streptavidin Functionalized Hydrogels**

Emily Sharp; Lorie Laforest; Yuqi Zhang; Karen Xu; Jason Burdick; Robert Mauck; Sarah Gullbrand

Poster No. 1554

**Two-Level ACDF Versus Two-Level Cervical Hybrid Construct**

Philip P. Ratnasamy; Sahir S. Jabbouri; Michael J. Gouzoulis; Arya G. Varthi; Jonathan N. Grauer

Poster No. 1555

**Link N Suppresses The Expression Of Markers For Inflammation And Pain In Intervertebral Disc Cells Through Direct Interaction With Il-1 $\beta$**

Michael Grant; Muskan Alad; Laura Epure; John Antoniou; Fackson Mwale

Poster No. 1556

**Withdrawn**



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-120 Spine - Diagnostics**

Poster No. 1557

##### **Are Pre- To Post-operative Changes In Dynamic Sagittal Balance Associated With Static Sagittal Alignment Measures In Patients With Adult Spinal Deformity?**

Pavlos Silvestros; Terry Nguyen; Jeamin Kim; Christopher P. Ames; Jeannie F. Bailey

Poster No. 1558

##### **Comparison Of Plantar Pressure Mapping To Traditional Force Plate For Assessing Imbalance**

Isabel M. Hansmann Canas; Gage Olson; Kelsey Detels; Ghazal Shabestanipour; Shanni Zhou; Harrison Wilson; Joseph Schwab; Hamid Ghaednia

Poster No. 1559

##### **Scoliosis Detection In Chest Radiographs Through Deep Learning Using A Data-efficient Image Transformer**

George M. Asrian; Yi-An Hsieh; Katherine S. Jia; Fikry Nuhuman; Chamith S. Rajapakse

Poster No. 1560

##### **Can X-ray Be Substituted With Surface Topography For The Rigo Classification System In The Management Of AIS?**

Natalie Schmidt; Adam Thiessen; Marissa Selthafner; Xue-Cheng Liu

Poster No. 1561

##### **Ai Patient Resources For Lumbosacral Radiculopathy: An Objective Analysis Of Available Materials**

Michael Birnhak; Rajwinder Singh; Hitangee Jain; Romona Ling; Mohammad Athar; Nakul Karakare; Vedant Vaksha

Poster No. 1562

##### **Ai-enhanced Identification Of Gait Subgroups In Low Back Pain: Clinical Implications For Tailored Interventions**

Felipe Gonzalez; Leonardo F. Metsavaht; Eliane C. Guadagnin; Talissa Generoso; Dino Samartzis; Jorge Chahla; Marcus Luzo; Jonathan Gustafson; Gustavo Leporace



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-121 Spine - Growth, Development and Aging**

Poster No. 1563

##### **Growth Modulation Is Not Uniform Within A Tether Construct**

Matthew Halanski; Cameron Jeffers; Brittney Kokinos; Tom Crenshaw

Poster No. 1564

##### **Growth And Progression Of Infantile Scoliosis**

Peter Stasikelis; Franklin Gettys; Michael Mendelow

Poster No. 1565

##### **Flex Ventilation Improves Pulmonary Mechanics In A Large Animal Model Of Thoracic Insufficiency Syndrome**

Agathe Guillemet; Klaus Hopster; Madeline Boyes; Rachel Hilliard; Jacob Jordan; Benjamin Sinder; Thomas Schaer; Brian Snyder; Patrick Cahill

Poster No. 1566

##### **Crispra Regulation Of Znf865 In Human Intervertebral Discs: Molecular Insights And Therapeutic Potential**

Christian Lewis; Jake Polaski; Brandon Lawrence; Jay Gertz; Robert Bowles

Poster No. 1567

##### **Evaluation Of Postoperative Complications, Length Of Stay, And Discharge Disposition Following Single-level Anterior Lumbar Interbody Fusion In Elderly And Octogenarian Patients**

Paul G. Mastrokostas; Leonidas E. Mastrokostas; Aaron B. Lavi; Abigail Razi; John K. Houten; Ahmed Saleh; Jad Bou Monsef; Afshin E. Razi; Mitchell K. Ng

Poster No. 1568

##### **Effect Of Patient Smoking Status On The Secretome Of Intervertebral Disc Tissues**

Zane Renfro; Jacob Kramer; Abigail Baumann; Theodore Choma; Don Moore; James Cook; Aaron Stoker



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-122 Spine - Injury, Healing and Pain**

Poster No. 1569

**Withdrawn**

Poster No. 1570

#### **Detecting Bouts Of Gait From Lumbar Wearable Sensors**

Stephanie Liu; Leslie George; Rachel Roos; Sebastian Murati; Anna Bailes; Kevin Bell; William Clark

Poster No. 1571

#### **Risk Factors For Loss To Follow-up In Thoracolumbar Trauma Patients**

Nicholas Tsavaris; Cameron Eason; Dion Birhiray; Lorenzo Deveza

Poster No. 1572

#### **Exploring Disc Height Index As A Link Between Depression And Low Back Pain: Data From The UK Biobank**

Mary Bucklin; Matthew Parmenter; Ashrith Alavilli; Kastriot Kamberi; Rana Ahmad; Scott Simmons

Poster No. 1573

#### **Dens Fractures And Traumatic Posterior Atlantoaxial Subluxation: Injury Mechanisms, Concomitant Injuries, Complications, And Mortality**

Emily Adams; Allen Zou; Leila Erbay; Andrew Li; Antonio Lobao; Daniel Chen; Mohamed Yousef; Robert Shepard; Raj Gala; Michael P. Stauff

Poster No. 1574

#### **Relationship Between Patient Reported Outcome Measures And The Secretome Of Symptomatic Intervertebral Discs**

Abigail Baumann; Jacob Kramer; Zane Renfro; Theodore J. Choma; Don Moore; James Cook; Aaron Stoker

Poster No. 1575

#### **Exploring Innovative Strategies To Enhance Osteoporotic Lumbar Fusion: Efficacy Of Local Delivery Of Prostaglandin Ep4 Receptor Agonist Kmn-159 And Zoledronic Acid In A Rat Model**



## LIST OF POSTERS

Xingui Tian; Paul Vincent Schröter; Corina Vater; Xuan Pei; Klaus-Dieter Schaser; Alexander C. Disch; Stefan Zwingenberger

Poster No. 1576

**Effects Of Metformin On Postoperative Opioid Consumption In Patients Undergoing Posterior Lumbar Decompression And Fusion Surgery**

Rachel Huang; Teeto Ezeonu; Jeremy Heard; Jonathan Dalton; Rajkishen Narayanan; Fatimah Alhassan; Gabrielle Kozlowski; Chloe Herczeg; Jarod Olson; Jose A. Canseco; Alan S. Hilibrand; Alexander R. Vaccaro; Christopher K. Kepler; Gregory D. Schroeder

Poster No. 1577

**Does In-hospital Opioid Use Have Any Effect On Long Term Opioid Use After Lumbar Fusion Surgery For Opioid Naive Patients?**

Michael V. Carter; Jonathan Dalton; Rajkishen Narayanan; Rachel Huang; Matthew Meade; Levi Buchan; Adam Kohring; Waqaas Hassan; Nicholas Tewell; Sebastian Fras; Grace Bowen; Max V. Suskil; Matthew Sabitsky; Ali Toth; Jose A. Canseco; Alan S. Hilibrand; Alexander R. Vaccaro; Christopher K. Kepler; Gregory D. Schroeder

Poster No. 1578

**Effects Of Intraoperative Intravenous Dexamethasone On Postoperative Outcomes In Patients With Diabetes Undergoing Pcdf**

Rachel Huang; Michael Carter; Jonathan Dalton; Rajkishen Narayanan; Andrew Kim; Hamd Mahmood; Joydeep Baidya; Robert J. Oris; Jose A. Canseco; Alan S. Hilibrand; Alexander R. Vaccaro; Gregory D. Schroeder; Christopher K. Kepler

Poster No. 1579

**Increased Emergency Department Utilization After Revision Compared To Primary Lumbar Fusion**

Robert Oris; Omar Tarawneh; Jonathan Dalton; Rajkishen Narayanan; Nicholas Pohl; Teeto Ezeonu; Emily Berthiaume; Alexander Vaccaro Jr; Marco Goldberg; Pranav Jain; Rachel Huang; Jarod Olson; Chloe Herczeg; Joydeep Baidya; Jose Canseco; Alan Hilibrand; Alexander Vaccaro; Gregory Schroeder; Christopher Kepler

Poster No. 1580

**Evaluating The Impact Of Chronic Beta-blocker Use On Postoperative Opioid Consumption Following Lumbar Fusion: A Propensity Matched Analysis**

Jarod Olson; Omar Tarawneh; Jonathan Dalton; Rajkishen Narayanan; Alec Giakas; Matthew Meade; Mark Miller; Olivia Opara; Michael Carter; Jane Wakefield; Jeffrey Zhou; Jose Canseco; Alan S. Hilibrand; Alexander Vaccaro; Gregory Schroeder; Christopher Kepler



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-123 Spine - Structure, Function and Mechanics**

Poster No. 1581

##### **The Role Of Facet Joint Angle In Lumbar Decompression Procedures: A Finite Element Analysis**

Craig Almeida; Shreyash Kumar; Jill Middendorf

Poster No. 1582

##### **Restoration Of Degenerative Disc Function Contributes To Facet Cartilage Recovery In A Large Animal Model**

Brianna S. Orozco; Matthew Fainor; Victoria G. Muir; Thomas P. Schaer; Jason A. Burdick; Sarah E. Gullbrand

Poster No. 1583

##### **Characterizing Healthy Sacroiliac Joint Kinematics During Gait Using Biplane Radiography**

Mike Z. Kuhn; Andrew Sudar; Edward Godbold; Stephen P. Canton; George V. Russell Jr.; William J. Anderst

Poster No. 1584

##### **Comparing Surface Topographic Range Of Motion In Pediatric Patients With Scheuermann's Kyphosis To Healthy Controls**

Jenna L. Wisch; Akshitha Adhiyaman; Ankush Thakur; Colson P. Zucker; Olivia C. Tracey; Benjamin N. Groisser; Ram Haddas; Michael Timothy Hresko; Matthew E. Cunningham; John S. Blanco; Howard J. Hillstrom; Roger F. Widmann; Jessica H. Heyer

Poster No. 1585

##### **A Fully Automatic Novel Methodology To Rapidly Generate Patient-specific Fe Spine Models For Clinical Assessment**

Mike Arun; Benjamin Aubert; Manuela Pacheco; Alex Turner

Poster No. 1586

##### **In Vivo Subject-specific Estimation Of Cervical Spine Disc Material Properties**

Soumaya Ouhousou; Dongge Jia; Clarissa LeVasseur; Jeremy Shaw; William Donaldson; Joon Lee; John Brigham; William Anderst

Poster No. 1587





## LIST OF POSTERS

---

**Development And Validation Of A High Fidelity Rigid Body Spine Model Inclusive Of Intra-abdominal Pressure**

Siril Teja Dukkupati; Mark Driscoll

Poster No. 1588

**Withdrawn**

Poster No. 1589

**Prediction Of Spinal Instability According To Cement Augmentation In Multi-level Fusion T10-s1 By The Using Finite Element Analysis**

Kimun Kang; Daehyeon Kim; Sungjae Lee; Byungho Lee

Poster No. 1590

**Muscle Gene Expression And Cellular Morphology In Individuals With Adult Spinal Deformity Who Develop Proximal Junctional Failure**

Anica Tillu; Pearce Haldeman; Nosewicz Camille; Gregory Mundis; Robert Eastlack; Bahar Shahidi

Poster No. 1591

**Biomechanical, Structural, And Composition Characterization Of The Vertebra-disc Interface**

Neilesh R. Frings; Harrah R. Newman; Faysal M. Haque; Dawn M. Elliott; Elise F. Morgan



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-124 Spine - Surgical and Non-Surgical Interventions**

Poster No. 1592

##### **Design Of A Biomechanically Enhanced, Compliant, Non-fusion Lumbar Interbody Device**

Daniel J. Orr; Tyler Peterson; Anna Jensen; Anton E. Bowden

Poster No. 1593

##### **Access To Robotic Spine Surgery In The Continental United States: A Geospatial Analysis**

Paul G. Mastrokostas; Leonidas E. Mastrokostas; Ahmed K. Emara; Ian J. Wellington; Ahmed Saleh; Jad Bou Monsef; Afshin E. Razi; Mitchell K. Ng

Poster No. 1594

##### **Prediction Of Primary Admission Total Charges Following Single-level Lumbar Arthrodesis Utilizing Machine Learning**

Paul G. Mastrokostas; Leonidas E. Mastrokostas; Abigail Razi; John K. Houten; Jad Bou Monsef; Afshin E. Razi; Mitchell K. Ng

Poster No. 1595

##### **Symptomatic Tarlov Cyst And Sexual Dysfunction: A Multidisciplinary Approach To Evaluation And Management**

Shashank Coorapati; Choll W. Kim; Barry R. Komisaruk; Noel N. Kim; Sue W. Goldstein; Alyssa Yee; Irwin Goldstein

Poster No. 1596

##### **Retrospective Analysis Of Isolated Nighttime Bending Brace Treatment In Patients With Idiopathic Adolescent Scoliosis**

Stefan Zwingerberger; Lisa Mersiowsky; Andreas Selle; Xinggui Tian; Xuan Pei; Peter Bernstein; Jens Seifert; Klaus-Dieter Schaser; Alexander C. Disch; Platz Uwe

Poster No. 1597

##### **An In Vitro Study To Identify Worst-case Mechanical Testing Parameters For Assessing Durability Of Anterior Vertebral Body Tethering (AVBT) Systems**

Vivek Palepu; Junfei Tong; Daksh Jayaswal; Vijay Goel

Poster No. 1598



## LIST OF POSTERS

### **Qualitative And Quantitative Retrieval Analysis Of A Ball-and-Socket Cervical Disc Replacement**

Jenna M. Wahbeh; Neha Kulkarni; Sang-Hyun Park; Edward Ebramzadeh; Sophia Sangiorgio; Bryan Cornwall

Poster No. 1599

### **Prediction Of Primary Admission Total Charges Following Lumbar Disc Arthroplasty Utilizing Machine Learning**

Paul G. Mastrokostas; Leonidas E. Mastrokostas; Ahmed K. Emara; Abigail Razi; John K. Houten; Ahmed Saleh; Jad Bou Monsef; Afshin E. Razi; Mitchell K. Ng

Poster No. 1600

### **Efficacy Of Hybrid Fusion For Management Of Multilevel Degenerative Lumbar Spine Disease In Patients With Spinal Deformity**

Audrey Chang; Rahul Ramanathan; Trudy Zou; Christopher Gonzalez; Christopher Como; Ryan T. Lin; Yunting Tang; Anthony Oyekan; John Weddle; Joon Lee; Michael Spitnale

Poster No. 1601

### **Impact Of GLP-1 Receptor Agonists On Inflammation, Bone Metabolism, And Fusion After Posterolateral Fusion In Type 2 Diabetes**

Rajkishen Narayanan; Teeto Ezeonu; Evan Bradley; Rachel Huang; Yunsoo Lee; Dessislava Markova; Jose A. Canseco; Alexander R. Vaccaro; Christopher K. Kepler

Poster No. 1602

### **Vaping Increases Risk Of Significantly Worse Outcomes Following Lumbar Fusion**

Dion Birhiray; Jad Lawand; Josh Morrow; Abdullah Ghali; Lorenzo Deveza

Poster No. 1603

### **Long-term Outcomes Of Treated Osteoporotic Patients Undergoing Spinal Surgery Are Not Associated With Implant Complications**

Dion Birhiray; Jad Lawand; Abdullah Ghali; Ahmadreza Nezameslami; Lorenzo Deveza

Poster No. 1604

### **Impact Of Direct Lateral Interbody Fusion On Short-term Functional Performance And Patient-reported Outcomes**

Zachary M. Johnson; Robin M. Queen; Jonathan J. Carmouche

Poster No. 1605

### **Development Of 3d-printed Interbody Fusion Devices To Enhance Biomechanical Stability And Reduce Post-surgical Complications In Canine Lumbosacral Disease**



## LIST OF POSTERS

---

Ali Kiapour; Miyuka Yoshida; Mitchell Greenberg; Matias Alonso; Mohammadjavad (Matin) Einafshar; Robert Bergman; Thomas Schaer

Poster No. 1606

**Examining The Relationship Between Pyramidal Signs, Patient Symptoms, And The Modified Japanese Orthopedic Association (mjoa) Score In Patients With Cervical Spondylotic Myelopathy**

Aakash Shah; Seth Meade; Alan Gordillo; Ghaith Habboub; Michael Steinmetz; Thomas Mroz

Poster No. 1607

**Innovative Design And Validation Of Patient-specific Instruments For Enhanced Trajectory Precision In Posterior Spinal Fusion Surgery**

Amir Hossein Saveh; Seyed Ahmad Niknam; Afsoon Seddighi; Amir Saeed Seddighi; Mohammadjavad (Matin) Einafshar; Ali Kiapour

Poster No. 1608

**Comparative Analysis Of Cervical And Lumbar Intervertebral Disc Degeneration Using A Translational Model**

Andres Bonilla; Samantha Masca; Devin Von Stade; Lindsey Burton; Jeremiah Easley



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### PS2-125      Bone - Diseases and Disorders

Poster No. 1609

##### **Improving Cytof Staining Methodologies: Overcoming Challenges And Sharing Solutions**

Yosuke Susuki; Issei Shinohara; Masatoshi Murayama; Simon Chow; Qi Gao; Stuart Goodman; Mayu Morita; Alexa K. Pius; Edward A. Ganio; Dorien Feyaerts; Brice Gaudillière; Yasemin Sude Ergul; Mehmet Sertac Cekuc; Chao Ma; Aditya Chindhade

Poster No. 1610

##### **Tocopherol Inhibits Bmscs Ferroptosis Through The Mapk/nrf2 Signaling Pathway To Delay The Progression Of Osteonecrosis Of Femoral Head**

Zhen Tan; Gensen Ye; Zhigang Peng; Deli Wang

Poster No. 1611

##### **Vertebral Texture And Geometry Measured From Digital Tomosynthesis Discriminate Patients With And Without Type 2 Diabetes**

Ram N. Yadav; Daniel Oravec; Josh Drost; Michael J. Flynn; George W. Divine; Sudhaker D. Rao; Yener N. Yeni

Poster No. 1612

##### **Sexual-Dimorphic Effects Of TRAPPC9 In Skeletal Homeostasis**

Gabrielle T. Robinson; Jalal S. Jwayyed; Jeffrey W. Toman; Justin E. Iwuagwu; Shahabeddin Yazdanpanah; Kennedy C. Nkachukwu; Kareem Muakassa; Mitchell W. Bailey; Sharon Usip; Fayez F. Safadi

Poster No. 1613

##### **Fibroblast Growth Factor 21 Potentiates Osteoclastogenesis In Duchenne Muscular Dystrophy**

Amelia Hurley-Novatny; Ling Wang; Hongshuai Li

Poster No. 1614

##### **Natural Compound Cajanin Targets Ptgs1 To Block Osteoclast Formation And Alleviate Estrogen Deficiency-induced Bone Loss**

Chao Ma; Liang Mo; Zhangzheng Wang; Henry Goodnough; Stuart Goodman; Yuhao Liu

Poster No. 1615



## LIST OF POSTERS

**Differential Effects Of Long-term Salt-inducible Kinase Inhibition On Cortical And Cancellous Bone Responses To Mechanical Loading**

Mia Huang; F. Patrick Ross; Marc Wein; Marjolein C van der Meulen

Poster No. 1616

**Periprosthetic Joint Infection Induces Increased Local Bone Remodeling With Impaired Matrix Mineralization And Unique Cytokine Signatures.**

Ana Ocokoljic; Assil-Ramin Alimy; Jan Hubert; Frank Timo Beil; Tim Rolvien

Poster No. 1617

**Antibody-mediated Neutralization Of T Cells And Il-17 Cytokine Rescued The Osteopenic Phenotype And Increased The Lifespan And Of Scurfy Mice.**

Abdul Malik Tyagi; Musarrat Naaz; Gaurav Swarnkar; Yousef Abu-Amer

Poster No. 1618

**Does Omega-3 Fatty Acid Supplementation Impact Risk For Spondylosis Or Intervertebral Disc Degeneration?**

Maria Pogue; Reed Ayers; David Ou-Yang; Cheryl Ackert-Bicknell

Poster No. 1619

**Cd14-deficiency Increases Osteoclastogenesis Via A Reduction In Type I Interferon Signaling**

Lance Murphy; Kevin Burt; Kate Sharp; Baofeng Hu; Vu Nguyen; Robert Mauck; Carla Scanzello

Poster No. 1620

**Divergent Effects Of Mechanical Loading And TGFβ1 Stimuli On The Hypertrophic-Chondrocyte Differentiation Of Naïve MSCs.**

Priscilla Füllermann; Thomas Jörmann; Esther Wehrle; Romano Matthys; Martin Stoddart; Sophie Verrier

Poster No. 1621

**Determining The Effect Of CD14 Deficiency On Osteoblastogenesis And Subchondral Bone Remodeling In Mice**

Kate Sharp; Lance Murphy; Kevin Burt; Anna Rapp; Vu Nguyen; Baofeng Hu; Robert Mauck; Carla Scanzello

Poster No. 1622

**Large Language Models Determine Sarcoma Subtype Incidence Via Pathology Reports**

Nicholas J. Cione; Dion Birhiray; Jacob R. Doddridge; Cameron Noorbakhsh; Ernest Conrad; Lorenzo Deveza



## LIST OF POSTERS

Poster No. 1623

**Comparing Sagittal Plane Kinematics Using Osteogenesis Imperfecta Specific Geometry During Rigid Body Modeling**

Maeve McDonald; Christina MR Garman; Jessica M. Fritz

Poster No. 1624

**Proteomic Changes Of Bone In An Ovine Model Of Osteoporosis**

Katie Bisazza; Lindsey Burton; Katie Sikes; Emily Van Zeeland; Brad Nelson; Jeremiah Easley

Poster No. 1625

**Kras Mutation And S100a4 Drive Bone Loss In A Mouse Model Of Gorham-stout Disease**

Ernesto Solorzano; Shahabeddin Yazdanpanah; Jalal Jwayyed; Gabrielle Robinson; Mitchell W. Bailey; Dean Spyres; Emily Kunz; Trinity Kronk; Kennedy Nkachukwu; Bryce Pember; Alexander Powell; Andrea Solorzano; Rama Safadi; Jared Hinton; Fayez Safadi

Poster No. 1626

**Survival Of Motor Neuron Protein Deficiency Reduces Bone Mass In Mouse**

Sheng Lei

Poster No. 1627

**How The Toxicity Of Prednisolone Affects Cell Viability And Function Via Alkaline Phosphatase And Alizarin Red Staining In 3d Culture**

Alexa K. Pius; Mehmet Sertac Cekuc; Yasemin Sude Ergul; Issei Shinohara; Masatoshi Murayama; Yosuke Susuki; Simon Chow; Mayu Morita; Stuart Goodman; Qi Gao; Bruce Bunnell; Hang Lin; Meagan Makarczyk

Poster No. 1628

**Ovx-induced Bone Loss At Different Skeletal Sites In A Preclinical Model Of Osteoporosis**

Michela Uberti; Claudio Intini; Austyn Matheson; Giulio Brunetti; Tom Hodgkinson; Oran Kennedy



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-126 Bone - Growth, Development and Aging**

Poster No. 1629

#### **Enhanced Osteogenic Differentiation In A Three-dimensional Bone Model Co-cultured With Human Mesenchymal Stem Cells And Human Umbilical Vein Endothelial Cells**

Masato Nakamura; Kazunori Shimomura; Hiroto Hanai; Wataru Ando; Michiya Matsusaki; Seiji Okada; Norimasa Nakamura

Poster No. 1630

#### **Alterations To Trabecular Microstructure Following Brachial Plexus Birth Injury**

Kyla B. Bosh; Claire L. E. Howes; Emily B. Fawcett; Katherine R. Saul; Jacqueline H. Cole

Poster No. 1631

#### **The Influence Of Tetrahydrocannabinol On The Rat Skeleton**

Nihumul Ehan; Faisal Sadar; Nicole Roeder; Samantha Penman; Gabriela Miletsky; Rania Ahmed; Michael Hadjiargyrou; Panayotis Thanos; David Komatsu

Poster No. 1632

#### **Hyperglycemia Impairs The Osteogenic Activity Of Osteoblasts**

Kyra Grove; Mitchell Kenter; Adil Akkouch

Poster No. 1633

#### **Examining The Impact Of Bone Marrow Fatty Degeneration On Skeletal Stem And Progenitor Cells**

Sophie M. Morgani

Poster No. 1634

#### **The Role Of Sprouty4 In Endothelial Cell Function And Bone Formation: Modulating Fgf Signaling To Enhance Vascularization And Skeletal Regeneration**

Margaux Sambon; Kevin Leclerc; Malissa Ramsukh; Benjamin Schaffler; Jack Zhong; Sophie Morgani; Philipp Leucht

Poster No. 1635

**Withdrawn**

Poster No. 1636

As of 2.5.2025





## LIST OF POSTERS

---

**Changes In Shape But Not Curvature: Distal Femoral Response To An Introduction Of Bipedal Walking In Rats**

Christopher O'Connor-Coates; David E. Komatsu; Christopher Percival

Poster No. 1637

**Knockout Of PLS3/Fimbrin Resulted In The Loss Of F-actin In Osteocyte Dendrites In Mature But Not Young Mice**

Rosa M. Guerra; Megan Coffin; Velia Fowler; Liyun Wang

Poster No. 1638

**Amino Acid Availability Governs Osteoblastic Rankl Production To Regulate Bone Resorption**

Guoli Hu; Yilin Yu; Courtney M. Karner

Poster No. 1639

**3d Spheroid Formation And Msc Differentiation From Human Ips Cells**

Qi Gao; Mehmet Sertac Cekuc; Issei Shinohara; Masatoshi Murayama; Yosuke Susuki; Shingo Kurihara; Mayu Morita; Simon Chow; Hang Lin; Bruce Bunnell; Stuart Goodman

Poster No. 1640

**CT-Derived Bone Mineral Density As A Surrogate For Osteoporotic Bone - Does It Predict Outcomes After Lumbar Revision Fusion?**

Jarod Olson; Omar Tarawneh; Jonathan Dalton; Rajkishen Narayanan; Robert Oris; Chloe Herczeg; Gordon Hua; Joseph Rajasekaran; Benjamin Crain; Sabrina Ortiz; Nathaniel Pineda; Jose Canseco; Alan S. Hilibrand; Alexander Vaccaro; Christopher Kepler; Gregory Schroeder



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-127      Bone - Injury and Healing**

Poster No. 1641

##### **Low Vitamin D3 Effects Pediatric Fracture Risk At Low Mechanisms Of Injury**

David Liu; Taylor-Marie Adams; Ariana Vitali; Patricia Miller; Hiroko Matsumoto; Melissa Putman; Susan Mahan; Brian Snyder

Poster No. 1642

##### **Yolk-sac Erythromyloid Progenitors In Fracture Healing**

Choiselle Marius; Koji Ishikawa; Puvindran Nadesan; Vijitha Puvindran; Tomasa Barrientos De Renshaw; Benjamin Alman

Poster No. 1643

##### **The Role Of Interleukin-6 In The Cellular Microenvironment And Osteogenesis Dynamics Of Human Mesenchymal Stem Cells**

Mengyao Liu; Maryam Rahmati; Deeksha Mamidi; Aneesh Satish Bhat; Soren Johnson; Mark Lee; Kent Leach; Augustine Saiz

Poster No. 1644

##### **Loss Of S-nitrosoglutathione Reductase In Adipogenic Lineage Cells Promotes Bone Regeneration In A Diet Induced Obese Mouse Model**

Ling Wang

Poster No. 1645

##### **Similarity Deep Learning Networks For Individual Cortex Must Score In Mouse Femur Models**

Jie Chen; Richard Parish, Cooper; Mubashir Jafry; Rui Hu; ZhuoHeng Liu; Xinyue Han; Istvan Gergely; Roman M Natoli; Melissa Kacena; Nian Wang

Poster No. 1646

##### **Trends In Screening And Treatment Of Osteoporosis After Periprosthetic Fractures From 2010-2020**

Jackson Durbin; Amy Zhao; Eric Cui; Amil Agarwal; Andrew Smith; Alex Gu; Gregory Golladay; Savyasachi Thakkar

Poster No. 1647



## LIST OF POSTERS

### **Kruppel-like Factor 15 -deficient Mice Exhibit Delayed Endochondral Ossification During Fracture Healing**

Shotaro Tachibana; Shinya Hayashi; Tomoyuki Matsumoto; Naoki Nakano; Yuichi Kuroda; Masanori Tsubosaka; Tomoyuki Kamenaga; Yuma Onoi; Kensuke Wada; Yoshihito Suda; Takuma Maeda; Akira Saitoh; Ryosuke Kuroda

Poster No. 1648

### **Assessing Mouse Model-based Femur Mrust Scores Via Intelligent Fracture Detection And Deep Learning Neural Networks**

jie chen; Richard Parish, Cooper; Mubashir Jafry; ZhuoHeng Liu; Xinyue Han; Istvan Gergely; Roman Natoli; Melissa Kacena; Nian Wang

Poster No. 1649

### **Impaired Primary And Secondary Bone Healing In Transchromosomic Mouse Models Of Down Syndrome**

Catrina J. Silveira; Kirby Sherman; Cole Dahlstrom; Dana Gaddy; Larry Suva

Poster No. 1650

### **Bone Remodeling After Peripheral Nerve Injury**

Kaixin Pan; Yuanshan Wu; Sameer Shah; Saeed Jerban

Poster No. 1651

### **Does Traumatic Brain Injury Enhance The Healing Of Bone Fracture? A “Bedside To Bench To Bedside” Investigation.**

Zheyu Jin; Ling Qin; Jiankun XU

Poster No. 1652

### **Effects Of Transcutaneous CO<sub>2</sub> Application In A Rat Fracture Model With Disuse Osteoporosis**

Hyuma Kondo; Tomoaki Fukui; Keisuke Oe; Yohei Kumabe; Yuya Yamamoto; Ryota Nishida; Jonathan Jonathan; Genta Fukumoto; Ryosuke Kuroda

Poster No. 1653

### **Withdrawn**

Poster No. 1654

### **The Pain Of Femoral Nonunion With Different Mechanical Stability In Rats**

Shuhei Mizobuchi; Koji Aso; Masashi Izumi; Masahiko Ikeuchi

Poster No. 1655



## LIST OF POSTERS

**A Preliminary Study On The Time-based Gene Expression During The Healing Process Of Fractures In Rat Femur**

Nazanin Nafisi; Ahmad Hedayatzadeh Razavi; Mohammad Sadegh Ghiasi; Mahboobeh Rostami; Fatemeh Mirzamohammadi; John Wixted; Ashkan Vaziri; Ara Nazarian

Poster No. 1656

**Current Challenges And Treatment Strategies Of Osteoporotic Fractures**

Joseph E. Sewell; Jiayong Liu

Poster No. 1657

**Improving Aged Fracture Healing By Neutralizing Circulating Apolipoprotein E**

Mingjian Huang; Kristin Molitoris; Abhi Balu; Gurpreet Baht

Poster No. 1658

**Use Of A Biomimetic Polymer Adhesive Improves Tibia Bone Fracture Healing In Rats**

Vasyl Pastukh; Jianying Zhang; Michael Copeland; Soichi Hattori; Derek J. Maloney; James H-C. Wang

Poster No. 1659

**Inflammaging In The Fracture Callus**

Kristin H. Molitoris; Mingjian Huang; Abhinav R. Balu; Gurpreet S. Baht

Poster No. 1660

**Temporal Effects Of Orthopedic Implant Retention Period On Host Cell Phenotype**

Sarah Romereim; Matthew Smykowski; Hailey Bennett; Xue Ma; Nicholas Bernthal; Joseph Wenke; Rachel Seymour; Joseph Hsu; Bailey Fearing

Poster No. 1661

**Runx3 Deletion Accelerates Secondary Fracture Healing By Promoting The Transition From Cartilaginous To Bony Callus**

Yusuke Chiba; Guanglu Liu; Varsha Devarapalli; dhara Patel; David Kapfhamer; Hicham Drissi

Poster No. 1662

**Intermittent Fasting Improves Endochondral Fracture Healing In Obese/T2D Mice**

Aaron Tran; Dana Godfrey; Ana Ferreira Ruble; Douglas Adams; Michael David; Honey Hendses; Michael Zuscik

Poster No. 1663

**Application Of Spatial Transcriptomics To Explore Key Marker Genes Of Fracture Callus And Potential Therapeutic Strategies For Fracture**



## LIST OF POSTERS

Will Jiang; Donghao Gan; Gongwei Wang; Francis Lee

Poster No. 1664

**Comparing Differences In Trace Elements Zinc And Magnesium Levels After Rat Femur Fracture In Diabetic And Non-Diabetic Models**

Jonathan Lopez; Matthew D. Montani; Mark Fisher; James Thornton; David Ahn; Jason Daniels; Darian Napoleon; Ruey Horng Chee; Laura Kuklo; Anthony Cusumano; Deanna Bello; Isabel Herzog; Dhruv Mendriatta; Melanie Gamboa; David Paglia; Sheldon Lin; J. Patrick O'Connor; Joseph Benevenia

Poster No. 1665

**Depletion Of The Gut Microbiota Alters Gene Expression Within The Dorsal Root Ganglia After Fracture**

David M. Kay; Daniel A. Oesterle; David Shull; Joseph L. Roberts

Poster No. 1666

**Assessing The Usability Of A Haptic Virtual Reality Simulator For Robot-assisted Femur Fracture Surgery: A Comparison Of VR And Non-VR Training Protocols**

Sara Ragab; Fayez Alruwaili; Michael Bickford; Nicholas Cella; Mohammad Abedin-Nasab

Poster No. 1667

**Jagged 1 Ligand Expression By AlphaSMA Positive Cells Is Required For Bone Fracture Healing**

Fatma Betul Kadas; Matthew Hart; Tanisha Deshmukh; Christina Capobianco; Sharon Shaw; Emma Wessels; Kyle Cragg; Alexis Donneys; Sanja Novak; Ivo Kalazjic; Yadav Wagley; Kurt Hankenson

Poster No. 1668

**Distal Radius Fractures Requiring Delayed Surgical Intervention**

Philip P. Ratnasamy; Omar Allam; Alexander J. Kammin; Xuan Luo; Jonathan N. Grauer

Poster No. 1668A

**The Effect Of Degree Of Radial Bowing On Clinico-radiological Outcome Following Osteosynthesis For Adult Forearm Shaft Fracture**

Rachit Arora; Ananta Kumar Naik; Jaskaran Singh

Poster No. 1669

**Sex-specific Systemic Inflammatory Responses In Mice Infected With A Sars-cov-2-like Virus And Fracture**

Matthew D. Patrick; Austin Foster; Aneja Arun; Ramkumar T. Annamalai

Poster No. 1670



## LIST OF POSTERS

---

**The Gut Microbiota Contributes To Systemic Inflammation After Fracture**

Kyle J. McFarlane

Poster No. 1671

**Unpacking Bone Strain Dynamics: How Internal And External Factors Impact Injury Risk In Basketball Players**

John Lupu; Chenxi Yan; Naeem Patel; Stuart Warden; Mariana Kersh

Poster No. 1672

**Withdrawn**

Poster No. 1673

**The  $\beta_2$ -adrenoceptor In Chondrocytes Regulates Bone Growth, Homeostasis And Healing**

Melanie R. Kuhn; Melanie Haffner-Luntzer; Sandra Dieterich; Anita Ignatius; Stefan O. Reber; Miriam E. A. Tschaffon-Müller



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-128      Bone - Mechanobiology**

Poster No. 1674

#### **Mechanically Activated Bone Cell Derived Extracellular Vesicles Regulate Angiogenesis In A Manner That Is Dependent On The Stage Of Lineage Commitment**

Carolina S. Martins; Mimma Maggio; Mathieu Y. Brunet; Cansu Gorgun; Rawan Almasri; Lorraine O'Driscoll; David Hoey

Poster No. 1675

#### **The Critical Role Of Mechanical Stability In Bone Fracture Healing, An Optimized Mechanoregulatory Model In Rodents**

Ahmad Hedayatzadeh Razavi; Nazanin Nafisi; John Wixted; Ara Nazarian

Poster No. 1676

#### **Sex Differences In Osteocyte Gene Expression Responses To Pathological Mechanical Load May Be Responsible For The Higher Burden Of Osteoarthritic Pain In Females**

Ryan Jones; Sophie Gilbert; Sarah Christofides; Deborah Mason

Poster No. 1677

#### **Exploring The Impact Of Microgravity On Paracrine Signaling In Osteoblasts And Osteoclasts**

Isaiah T. Taylor; Sardar MZ Uddin; David E. Komatsu

Poster No. 1678

#### **Mef2c Regulation Of Dag1, A Component Of The Dystrophin-glycoprotein Modulates Trabecular Bone Volume**

Samhitha Tumkur; Cesar Morfin; Benjamin Osipov; Aimy Sebastian; Nicolas Hum; Deepa Muruges; Nosisa Ncube; Blaine Christiansen; Gabriela Loots

Poster No. 1679

#### **Allometric Analyses Of Portuguese Water Dog Femora Potentially Challenge The Theories Of Geometric And Elastic Similarity In This Model**

John Cronin; John Skedros



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-129 Bone - Structure, Function and Mechanics**

Poster No. 1680

##### **A Data-driven Framework For Modulus-density Relationship Of Human Lumbar Vertebral Body**

Shengzhi Luan; Elise Morgan

Poster No. 1681

##### **Mechanical Properties Of A New Additive Manufactured Pet-cf Biomechanical Bone Model**

Zachary Koroneos; Hwa Bok Wee; Mackenzie Stewart; Jake Runk; Valeriya Stepanyants; Arush Shroff; Sebastian Duran; Avianna Pugliese; Edward Fox; Greg Lewis

Poster No. 1682

##### **Proximal Radial Shaft Morphology Variance Caused By Patient Height**

Michael Cobo; Johannes Sieberer; Steven Tommasini; Daniel Wiznia; Lisa Lattanza

Poster No. 1683

##### **Computational Scheme To Evaluate Fixation Strength And Bone Regeneration Around Swelling Bone Anchors**

Amir Sadighi; Mehrangiz Taheri; Nolan Black; Moein Taghvaei; Madeline Boyes; Delaney Oeth; Sorin Siegler; Thomas Schaer; Ahmad R. Najafi

Poster No. 1684

##### **Statistical Shape Model Analysis Of Chinese Hind Foot Bones**

Yuanke Li; Nan Zheng; Zhemin Zhu; Diyang Zou; Li Pingyue; Tsung-Yuan Tsai

Poster No. 1685

##### **Season Of Birth Affects Whole Bone Mechanical Properties In Diversity Outbred Mice**

Brittany M. Wilson; Quyen M. Diep; Larry D. Mesner; Gina M. Calabrese; Basel M. Al-Barghouthi; Frank C. Ko; Meghan M. Moran; Charles R. Farber; Rick Sumner

Poster No. 1686

##### **Effects Of Artificial Gravity Induced By Centrifugation On Murine Bone Composition And Mechanical Properties Abroad The International Space Station**





## LIST OF POSTERS

Mustafa UNAL; Jennifer Coulombe; Anna Wadhwa; Marie Mortreux; Shannon Emerzian; Jason Ciola; Jarred Chow; Daniel Brooks; Jeffrey Willey; Charles Fuller; Satoru Takahashi; Martha H. Vitaterna; Mary L. Bouxsein

Poster No. 1687

**Finite Element Modeling Of Metastatic Femurs With Prophylactic Intramedullary Nail Fixation**

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

Poster No. 1688

**Osteoactivin/GPNMB As A Positive Regulator For Bone Formation Via Cd44-dependent Pathway**

Jared Hinton; Gregory Sondag; Adam Ghazoul; Mark Villers; Bryce Pember; Fayez Safadi

Poster No. 1689

**Wireless And Battery Free System For The Long-term Monitoring Of In Vivo Bone Strain In Small And Large Animals**

Gerardo Figueroa Romero; Kevin A. Kasper; Dania L. Perez; Avery M. Miller; David A. Gonzales; Jesus A. Siqueiros; Julio Camacho; Philipp Gutruf; David S. Margolis

Poster No. 1690

**Withdrawn**

Poster No. 1691

**An Improved Potting Method For Torsional Testing Of Intact Or Injured Mouse Femora**

Sara McBride-Gagyi; Allison Smith; Benjamin Brooks; Benjamin Walter

Poster No. 1692

**Predicting Whole Metatarsal Fatigue Life With Finite Element Modeling**

Andrew R. Wilzman; Karen L. Troy



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-130 Bone - Treatment and Therapeutics**

Poster No. 1693

#### **A Phase 1 Clinical Outcomes Of Osteonecrosis Of The Femoral Head Using Allogenic Osteoblasts With Core Decompression**

Hyun-Sook Park; Seung-Hoon Baek; Sunray Lee; Yeon Kyung Lee; Shin Yoon Kim; Bum-jin Shim

Poster No. 1694

#### **Analysis Of Osteomyelitis By Raman Spectroscopy Using Rat Osteomyelitis Model**

Shun Fujii; Naoyuki Horie; Hiroataka Matsuura; Haruki Takimoto; Giuseppe Pezzotti; Osam Mazda; Kenji Takahashi

Poster No. 1695

#### **Generation Of MSC-macrophage Organoids For BoneRegeneration**

Qi Gao; Mehmet Sertac Cekuc; Issei Shinohara; Masatoshi Murayama; Yosuke Susuki; Max Lee; Simon Chow; Stuart Goodman

Poster No. 1696

#### **Inhibition Of TRPV4 Reduces The Inflammatory Macrophage Phenotype And Enhances MSC Osteogenesis: A Potential Novel Therapeutic To Promote Fracture Repair**

Stephane Petrousek; Gabriela Kronemberger; Sinead O'Rourke; Lianne Shanley; Aisling Dunne; Daniel Kelly; David A. Hoey

Poster No. 1697

#### **Metabolic Modulation Of Human Macrophage Phenotype For The Production Of Extracellular Vesicles For Bone Repair**

Cansu Gorgun; Paula Klavina; Brenton L. Cavanagh; Annie M. Curtis; David A. Hoey

Poster No. 1698

#### **Targeting Senescence-Associated Secretome Mitigates Radiation-Induced Bone Anomalies**

David Achudhan; Jacob Orme; Ritika Sharma; Nathan K. LeBrasseur; Sean Park; Robert J. Pignolo; Abhishek Chandra

Poster No. 1699

#### **Aav-mediated Gene Transfer To Sites Of Osseous Nonunions**



## LIST OF POSTERS

Erin B. McGlinch; Joseph A. Panos; Michael J. Coenen; Rodolfo de la Vega; Michael A. Barry; Christopher Evans

Poster No. 1700

**Biomechanical Evaluation Of All-suture Anchors Utilized In Rotator Cuff Repairs In Relation To Local Bone Density**

Andrew Posner; Dave T. Huang; Andrew Nakla; Ajith Malige; Orr Limpisvasti; Melodie Metzger

Poster No. 1701

**Decellularized Meniscus (MEND) Promotes Osteogenesis For Cranial Bone Reconstruction**

Hagar M. Kenawy; Hannah Bonelli; Sara Grasselli; Cristina Barbella; Dana Ragbirsingh; Paul Gehret; Alexander Tucker; Riccardo Gottardi

Poster No. 1702

**All-trans Retinoic Acid Modulates Peripheral Blood Immune Cells In A Rat Model Of Musculoskeletal Trauma**

Tyler Guyer; Dylan Gill; Kelly Leguineche; Robert Guldberg

Poster No. 1703

**R-spondin-2 Is A Contextual Regulator Of BMP-induced Bone Healing**

Buchan Jiang; Madison Buckles; Noah Sinishtaj; Alexander Knights; Archana Sanjay; Yadav Wagley; Kurt Hankenson

Poster No. 1704

**Sexual Dimorphism In Skeletal Responses To Intermittent Parathyroid Hormone (PTH) Treatment And Discontinuation**

Y. Vincent Jin; Wonsae Lee; Tala Azar; Xiaoyu Xu; Wei-Ju Tseng; X. Sherry Liu

Poster No. 1705

**Accuracy And Precision Of Biplanar Videoradiography To Quantify Tibial Fracture Motion After Fixation Surgery**

Conor Smith; Tomasz Bugajski; Alonso Figueroa; Stephen Warner; James Kellam; Payam Zandiyeh

Poster No. 1706

**Investigating The In Vitro Osteogenic Activity Of Metabolites Modulated By Probiotics After Fracture**

Yassna Hematti; Hicham Drissi; Joseph Roberts

Poster No. 1707



## LIST OF POSTERS

---

**Femoral Rotational Guided Growth: Biomechanical Analysis Of The Influence Of Plate Size And Plate Orientation On Rotational Correction**

Alexander Chang; Ryan Li; Andrew Moyal; Raymond Liu

Poster No. 1708

**Semaphorin-3f Treatment Leads To Bone Loss By Activating Osteoclastogenesis And Inhibiting Bone Formation**

Ernesto Solorzano; Shahabeddin Yazdanpanah; Andrew Alejo; Kareem Muakkassa; Ryan Muakkassa; Mathew Bonfiglio; Hope Ball; Fayez Safadi



## LIST OF POSTERS

---

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-131      Foot and Ankle - Diagnostics**

Poster No. 1709

#### **Increased Postoperative Foot Pain Following Total Knee Arthroplasty Is Common And Unrelated To Pre-operative Limb Alignment Or Correction**

Timothy S. Brown; Alex K. Ramos; Jordan Ankersen; Sree M. Vemu; Blesson Varghese; Thomas C. Sullivan; Bradley S. Lambert; Jason S. Ahuero

Poster No. 1710

#### **Analyzing Orthopaedic Surgeon Gaze Patterns During The Assessment Of Syndesmosis Misalignment**

Jessica E. Molina; Chloe E. Baratta; Jose L. Zermeno Salinas; Christopher W. Reb; Jennifer A. Nichols

Poster No. 1711

#### **AI Patient Resources For Ankle Instability An Objective Analysis Of Available Materials**

Rajwinder Singh; Hitangee Jain; Michael Birnhak; Mohammad Athar; vedant Vaksha; Nakul Karkare; Amritjot Dhillon



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-132      Foot and Ankle - Injury and Healing**

Poster No. 1712

##### **Exploring Infection In Primary Total Ankle Arthroplasty**

Albert T. Anastasio; Kevin A. Wu; Conor N. O'Neill; Grayson M. Talaski; Emily Luo; Alexandra N. Krez; Billy I. Kim; James A. Nunley; James K. DeOrio; Mark E. Easley; Samuel B. Adams

Poster No. 1713

##### **Radiographic Soft Tissue Thickness Is Not A Risk Factor For Infection After Primary Total Ankle Arthroplasty**

Grayson M. Talaski; Albert T. Anastasio; Kevin A. Wu; Kate Kutzer; Alexandra N. Krez; James K. DeOrio; Mark E. Easley; James A. Nunley; Samuel B. Adams

Poster No. 1714

##### **A Novel And Convenient Transdermal Met Lotion For Tendinopathy Treatment**

Jianying Zhang; Derek Maloney; Vasyl Pastukh; Soichi Hottori; Neil Poddar; MaCalus Hogan; James Wang

Poster No. 1715

##### **Exploring Revision Total Ankle Arthroplasty Failures: A Descriptive Statistical Comparison Between Failed And Successful Revision Cases**

Albert T. Anastasio; Kevin A. Wu; Grayson M. Talaski; Alexandra N. Krez; Kishen Mitra; James K. DeOrio; James A. Nunley; Mark E. Easley; Samuel B. Adams

Poster No. 1716

##### **Association Of Radiographic Soft Tissue Thickness With Revision Total Ankle Arthroplasty Following Primary Total Ankle Arthroplasty: A Minimum Of 5-year Follow-up**

Albert T. Anastasio; Kevin A. Wu; Alexandra N. Krez; Grayson M. Talaski; Kate Kutzer; James K. DeOrio; Mark E. Easley; James A. Nunley; Samuel B. Adams



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-133      Foot and Ankle - Structure, Function and Mechanics**

Poster No. 1717

##### **Morphological Analysis Of Cortical Thickness In Individuals With Charcot Marie Tooth Disease**

Eliana D. Moreno; Melissa Requist; Andrew Peterson; Amy Lenz

Poster No. 1718

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

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

Poster No. 1719

##### **Contribution Of The Plantar Fascia And Long Plantar Ligament To The Stability Of The Longitudinal Arch Of The Foot**

Luigi Piarulli; Rena Mathew; Sorin Siegler

Poster No. 1720

##### **Gait Analysis And Plantar Pressures Of Patients With Charcot Neuroarthropathy**

Zachary Koroneos; Charlie Hernjak; Irene Laleye; Shelby Alwine; Akhil Bolisetti; Angelica Carr; Titus Richardson; Ashlee MacDonald; Michael Aynardi

Poster No. 1721

##### **Joint Coordination Variability In Patients Following Total Ankle Arthroplasty**

Tyler Schalow; Robin Queen

Poster No. 1722

##### **Peak Achilles Tendon Loading During On-court Basketball Activities Vary By Prior Formal Basketball Experience, Not Age, Across College-aged And Middle-aged Adults**

Matthew J. Manduca; Aidan P. Rahill; Roy F. Cook; Demia Bland; John F. Drazan

Poster No. 1723

##### **Biomechanical Analysis Of Gait In A Walking Boot With Contralateral Foot Lift**

Tyler Teurlings; Alexander Vlasak; Brittany Raymond; Marissa Pazik; Alexander Barnett; MaryBeth Horodyski; Chong Chen; Rull J. Toussaint; Michael Talerico



## LIST OF POSTERS

---

Poster No. 1724

**Influence Of First Ray Positioning On Ankle Contact Stresses In The Setting Of A Subtalar Arthrodesis**

Connor Maly; Maxwell Sakyi; Jessica Goetz; Marc Brouillette; Lucinda Williamson; Cesar de Cesar Netto;  
Bopha Chrea





## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-134      Foot and Ankle - Surgical and Non-Surgical Interventions**

Poster No. 1725

##### **Safety And Efficacy Of Nitinol Staples For Foot And Ankle Procedures**

Tudor Tien; Christopher Zingas; Alex McGraw; Laura Brinker; Mathew Anderle

Poster No. 1726

##### **Comparison Of Surgical Outcomes For Patients Undergoing Isolated Metatarsophalangeal Fusion And Metatarsophalangeal Fusion With Concomitant Hammertoe Correction**

Kenechukwu K. Ume; Jason Bariteau; Wesley J. Manz

Poster No. 1727

##### **APEX 3D Total Ankle Replacement System: An Ambispective Early Outcomes Study**

Evan P. Shoemaker; Becky Stone McGaver; John C. Tanner; Paul C. Cammack

Poster No. 1728

##### **Efficacy Of Intraoperative Vancomycin Powder In Reducing Postoperative Wound Complications Following Foot And Ankle Surgery: A Retrospective Cohort Analysis**

Makenna Isley; Ryan Lee; Yanal Kawaleet; Jamal Ahmad; Nirav Mungalpara; Brett Drake; Apurva Choubey

Poster No. 1729

##### **Describing Accuracy Of Patient Specific Instrumentation With Postoperative Computed Tomography For Total Ankle Arthroplasty**

Edward Haupt; Moawiah Sobhi Mustafa; George Dierking; Justin Ivoc; Ali A. Siddiqui; Ramiro Lopez; Cole Herbel

Poster No. 1730

**Withdrawn**

Poster No. 1731

##### **Robotic Evaluation Of Ankle Joint Stability Following Trans-syndesmotic Fixation, AITFL Augmentation, And Deltoid Ligament Repair In The Setting Of A Combined Deltoid And Syndesmosis Injury**

Alex W. Brady; Kiminari Kataoka; Jason P. Sidrak; Rio G. Castro; Emre Eren; Christopher D. Kreulen; Jonathan D. Backus; Craig T. Haytmanek



## LIST OF POSTERS

---

Poster No. 1732

**Outcomes Of Lapiplasty Procedure In Hallux Valgus Correction: A Retrospective Analysis**

Thelma R. Jimenez Mosquea; Yasamin Daneshvar; Jasmeet Chawla; Uzaam Syed; Hugo A. Ubillus; Jeffrey V. Lucido; Paul Greenberg; Rick Delmonte; Raymond J. Walls

Poster No. 1733

**Biomechanical Comparison Between Nitinol Staple/screw Fixation And Plate/screw Fixation For First Mtp Joint Arthrodesis**

Justin F.M. Hollenbeck; Chase M. Romere; Jason P. Sidrak; Craig T. Haytmanek; Jonathan D. Backus

Poster No. 1734

**Mid- To Long-term Outcomes Of Stemmed Primary Total Ankle Replacement For Ankle Osteoarthritis: A Systematic Review With A Minimum 5-year Follow-up**

Thelma R. Jimenez Mosquea; Yasmeen Saeed; Hugo A. Ubillus; Raymond J. Walls

Poster No. 1735

**Outcomes Of Bilateral Scandinavian Total Ankle Replacement: A Detailed Analysis Of Implant Survivability And Patient-reported Outcomes**

Alexandra Hunter Aitchison; Albert Anastasio; Kevin Wu; Emily Poehlein; Cynthia Green; Samuel Adams; James DeOrio; Mark Easley; James Nunley



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-135      Tendon and Ligament - Diseases and Disorders**

Poster No. 1736

#### **Repetitive Mechanical Stress Triggers Epigenetic Reprogramming And Transcriptional Alterations In Tendon Cells**

Yuna Heo; Yujia Zhang; Yongho Bae; Su Chin Heo

Poster No. 1737

#### **Single Cell Analysis Reveals Fibroblast Dysregulation In Human Achilles Tendinopathy**

Sofia Demolder

Poster No. 1738

#### **Effects Of Diet And Systemic Adipose On Supraspinatus Tendon Collagen Alignment And Mechanical Behavior**

Neil Narayanan; Shawn Pavey; Kelsey Collins; Rachana Vaidya; Spencer Lake; Farshid Guilak; Jennifer A. Zellers

Poster No. 1739

#### **Senescent Associated Secretory Factors Drive Fibroblast Senescence**

Chelsea A. Wu; Alison Bode; Claire C. Desrochers; Penn Sagedahl; Ken Nishimura; Sandra Passe; Megan M. Weivoda; Anne Gingery

Poster No. 1740

#### **In Vitro Tendon Models Demonstrate The Impact Of Matrix Microarchitecture On Extracellular Vesicle Profiles And Tgf- $\beta$ Expression**

Kariman A. Shama; Zachary Greenberg; Mei He; Brittany Taylor

Poster No. 1741

#### **Spatial Transcriptomic Revealed The Involvement Of Apoptosis, Mtor, Akt And Ampk Signaling Pathway In Rotator Cuff Tendinopathy**

Yuk Wa Lee; Ssu Chi CHEN; Chun Man Lawrence Lau; Pauline Po Yee Lui

Poster No. 1742

#### **Obesity Induced Tendinopathy-like Histopathological Changes In Human Tendon And Maintained TDCs In A Healing State With Low Regenerative Capacity**



## LIST OF POSTERS

---

Yuk Wa Lee; Cheuk Hin Kot; Ssu Chi CHEN; Pauline Po Yee Lui



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-136      Tendon and Ligament - Growth, Development and Aging**

Poster No. 1743

##### **Aging Alters Tenocyte Response To Inflammation With Enhanced Sensitivity And Cellular Dysfunction**

Tyler E. Blanch; Ellen Y. Zhang; Xi Jiang; Nathaniel A. Dymant; Su Chin Heo

Poster No. 1744

##### **Sex-differences In Rotator Cuff Tissues Through Multiomics.**

Paula Sarmiento; Muktesh Chandra; Devender Arora; Priyanka Ramesh; Jyothi Thimmapuram; Dianne Little

Poster No. 1745

##### **Cellular Senescence And Laminb1 Breakdown In Connective Tissue From Carpal Tunnel Syndrome Patients**

Ken Nishimura; Clarie C. Desrochers; Sandra Passe; Penn Sagedahl; Sarah G. McMahon; Mimi C. Sammarco; Peter C Amadio; Megan M. Weivoda; Anne Gingery

Poster No. 1746

##### **Actomyosin Contractility Is Critical For Cell Organization And Matrix Accrual During Tendon Growth**

Mary Kate Evans; Elizabeth Bernstein; Ngoc Hoang; Jiaqi Xiang; Ellie Ferguson; Tonia Tsinman; Xi Jiang; Lin Han; Eiki Koyama; Joel Boerckel; Robert Mauck; Nathaniel Dymant



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-137      Tendon and Ligament - Injury and Healing**

Poster No. 1747

#### **Machine Learning Integration Of MRI Radiomics Reveal Soft Tissue Phenotypes In A Rat Achilles Injury Model**

Michael A. David; Christopher Orear; Julia Matthias; Arnet Cameron; Lluvia Mejia Tovar; Daniel K. Moon

Poster No. 1748

#### **CDK9 Inhibition Reduces Tenocyte-to-Myofibroblast Differentiation**

Thomas L. Jenkins; Jasper H.N. Yik; Dominik R. Haudenschild

Poster No. 1749

#### **The Role Of Fatty Acid Metabolism Following ACL Rupture: Insights Into PTOA Progression From A Translational Model**

Ashley M. Potter; Emily M. Van Zeeland; Lindsey H. Burton; Jeremiah T. Easley; Tara M. Nordgren; Katie J. Sikes

Poster No. 1750

#### **NF- $\kappa$ B And JAK/STAT Pathways Differentially Regulate Tendon Fibroblast Responses To Macrophage-Induced Inflammation**

McKenzie E. Sup; Mark (Min Kyu) M. Kim; Lee Song; Stavros Thomopoulos

Poster No. 1751

#### **The Effects Of Co-culture Of The Human Anterior Cruciate Ligament, Synovium, And The Tendon Autografts After Acl Injury**

Luke M. Annin; Maria L. Hinkamp; Kelsey R. Atteberry; Kris Lin; Shen-Ying (Richard) Ma; James L. Cook; Aaron M. Stoker

Poster No. 1752

#### **Effect Of Time From Injury To Surgery On The Secretome Of Joint Tissues After ACL Injury**

Maria Hinkamp; Luke Annin; Kelsey Atteberry; Kris Lin; Richard Ma; James Cook; Aaron Stoker

Poster No. 1753

#### **Development Of An Explant Model Of Tendon Injury To Study Heterotrophic Ossification**

Tarek Klaylat; Cameliya Sinha Roy; Paul Martineau; Mohan Radhakrishna; Chan Gao; Rahul Gawri



## LIST OF POSTERS

---

Poster No. 1754

**The Temporal Role Of Collagen XII In Mouse Tendon Healing**

Jacob C. Nixon; Stephanie A. Weiss; Nathaniel A. Dyment; Lou J. Soslowsky

Poster No. 1755

**Resorbable Suture Is A Suitable Surgical Repair Material In A Rat Achilles Rupture And Repair Model**

Natalie K. Gilmore; Keith Baar

Poster No. 1756

**Tendon Fatigue Damage Regionally Modulates Connexin-43, Suggesting Role In Apoptotic Spread**

Benjamin B. Johnston; Joshua B. Lee; Nelly Andarawis-Puri

Poster No. 1757

**Impact Of Serum Advanced Glycation End-products And RAGE Inhibition On Gene Expression In A Murine Model Of Patellar Tendon Healing**

Harrison Cottingham; Camila Reyes; Nathan Campbell; Eric Gutierrez; Gordon Smilanich; Talayah Johnson; Nathaniel Dyment; Chad Carroll

Poster No. 1758

**Classification Of Anterior Cruciate Ligament Reconstruction Patients Using Machine Learning**

Trinity A. Morrow; Joe M. Hart; Amanda E. Nelson; Liubov Abreeva; Devin K. Kelly

Poster No. 1759

**Utility Of Personalized Reference Values For Characterizing Performance In Patients With Acl Reconstruction**

Jonathan R. Davis; Devin K. Kelly; Joe M. Hart

Poster No. 1760

**Examining The Relationship Between Pre-operative Kinesiophobia And Early Post-operative Pain In Patients Undergoing Acl Reconstruction**

Jack R. Felkner; Jeffrey T. Spang; Joe Hart; Devin Kelly; Chandler Kotseos; Kate Hickson; Bradley Lauck

Poster No. 1761

**Human Tendon-on-a-Chip For Modeling The Myofibroblast Microenvironment In Peritendinous Fibrosis**

Isabelle Linares; Raquel Ajalik; Rahul Alenchery; Victor Zhang; James McGrath; Hani Awad

Poster No. 1762

**Reduction Of Type III Collagen During Healing Worsens Mechanical Properties In Aged Mouse Tendons**



## LIST OF POSTERS

---

Margaret K. Tamburro; Jaclyn A. Carlson; Stephanie N. Weiss; Jeremy D. Eekhoff; William Yen; Susan W. Volk; Lou J. Soslowsky

Poster No. 1763

**Yap And Taz Mediate A Transcriptional Feedback Loop To Maintain Tensional Homeostasis In Tenocytes**

Elizabeth Seidl; Manav Surti; Nathaniel Dymont; Joel Boerckel

Poster No. 1764

**Biologicalfunction Analysis Of Anterior Cruciate Ligament**

Hongbin Lu; Yuying Yang

Poster No. 1765

**Reduction Of Type III Collagen During Healing Has Minimal Impact On Young Adult Mouse Tendon Healing**

Margaret K. Tamburro; Jaclyn A. Carlson; Emma E. Kroll; Miranda K. Doro; Stephanie N. Weiss; Jeremy D. Eekhoff; William Yen; Lou J. Soslowsky; Susan W. Volk

Poster No. 1766

**Type III Collagen Supports Self-assembly Of HIPSC-Endothelial Cells In A Vascularized Human Tendon-on-a-Chip**

Victor Z. Zhang; James McGrath; Hani Awad





## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-138 Tendon and Ligament - Structure, Function and Mechanics**

Poster No. 1767

##### **A Novel Acoustic Wearable For Assessment Of Tendon Health And Loading Condition**

amirhossein Yazdkhasti; Andreea Lucaciu; Hendrik De Klerk<sup>2</sup>; Rana Moeinzad; Hamid Ghaednia; Joseph H. Schwab

Poster No. 1768

##### **Ascorbic Acid And Mechanical Homeostasis Are Key Players In Tendon Cell Mechanotransduction**

Patrick Jaeger; Fabian Passini; maja bollhalder; barbara niederoest; Jess Snedeker

Poster No. 1769

##### **Coordination Of Collagens V And XI Guide Fibril Assembly During Mouse Patellar Tendon Postnatal Development**

Nat Thurlow; Jeremy Eekhoff; Meera Ratnagiri; Courtney Nuss; Stephanie Weiss; Nathaniel Dyment; Lou Soslowsky

Poster No. 1770

##### **Achilles Subtendon Sliding Is Decreased In Patients With Achilles Tendinopathy**

Sittinon Nuethong; Devyn Russo; Madison Woods; Todd Hullfish; Michelle Kwon; Josh Baxter

Poster No. 1771

##### **Biomechanical Comparison Of Full-thickness Versus Partial-thickness Quadriceps Tendon Grafts For ACL Reconstruction**

Jalen Dansby; Dave T. Huang; James Tibone; Andrew Nakla; Casey Batten; Melodie Metzger

Poster No. 1772

##### **Exogenous Monomeric Collagen Extends The Fatigue Life Of Rat Tail Tendon Fibers**

Phoebe Szarek; Jeffrey W. Ruberti

Poster No. 1773

##### **Mechanisms Of Aligned Collagen Formation In Human Adipose-derived Stromal/stem Cells**

Thomas L. Jenkins; Dianne Little

Poster No. 1774



## LIST OF POSTERS

---

**Fatigue Of Human Tendons: A Rapid Review Of Mechanical Testing And Related Modelling**

Delaney MacIntosh; Lindsey Westover; Gail M. Thornton

Poster No. 1775

**Mechanical Fatigue Of Human Knee Ligaments: A Rapid Review**

Chester Jar; Lindsey Westover; Gail M. Thornton

Poster No. 1776

**Load To Failure After Proximal Hamstring Repairs And Reconstructions: A Systematic Review Of Biomechanical Investigations**

Michael Lee; Andrew Fallon; James MacLeod; Stephen Gillinov; Nancy Park; Kevin Girardi; Jay Moran; Serkan Surucu; Scott Fong; Andrew Jimenez

Poster No. 1777

**Regenerative Spiny Mice Have Mechanically-inferior Achilles Tendons: A Comparative Study With Cd1 Mice**

Mariah Turner; Harrison Broadway; Sebastian Pena; Janak Gaire; Brittany Taylor

Poster No. 1778

**Predictive Modeling Of Viscoelastic Properties Of The Scapholunate Interosseous Ligament**

Natalia D. McIver; Christina Salas; Mahmoud Taha



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-139      Tendon and Ligament - Treatment and Therapeutics**

Poster No. 1779

##### **Developmental Pathway Informed Side Product-free Induced Human Tenocyte Production**

Ahmet E. Pazarceveren; Melissa Chavez; Julia Sheyn; Dmitriy Sheyn

Poster No. 1780

##### **Continuous Expansion Of Primary Human Cruciate Ligament Cells For Ligament Tissue Engineering**

Tarek Klaylat; Mustafa Fakh; Paul A. Martineau; Showan N. Nazhat; Derek Rosenzweig; Rahul Gawri

Poster No. 1781

##### **Optimizing Ligamentogenesis In 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. 1782

##### **Focused Ultrasound Stimulation Of PEG-fibrinogen NO-releasing Hydrogels For Tendon Healing**

Emily Rogers; Dylan Easley; Rebecca Abi-Aad; Sara ElNahhas; Smitha Rao; Rupak Rajachar; Eli Vlaisavljevich; Vincent Wang

Poster No. 1783

##### **Adaptive Cyclic Strain That Changes As Collagen Fibers Form Does Not Enhance Engineered Ligament Maturation**

Leia D. Troop; Jenny Puetzer

Poster No. 1784

##### **Biomechanical Analysis Of Acl Graft Forces And Tibiofemoral Motion After Acl Reconstruction With Lateral Extra-articular Tenodesis At Varying Femoral Insertion Points And Flexion Angles**

Alex Brady; Bradley M. Kruckeberg; Mark E. Cinque; Jason P. Sidrak; Ajay C. Kanakamedala; Thomas R. Hackett; Armando F. Vidal; Jonathan A. Godin

Poster No. 1785

##### **Dose-dependent Association Between Hypertensive Drugs And Risk Of Tendinopathy In A US Population-based Study**

Haiyin Li; David J. Ciuffo; Chike Cao



## LIST OF POSTERS

---

Poster No. 1786

**Recombinant Protein Therapeutic Improves Extracellular Matrix And Cell Orientation In A Dose Dependent Manner**

Marguerite Pacheco; Nelly Andarawis-Puri

Poster No. 1787

**The Impact Of Stem Cell Extracellular Vesicle Heterogeneity On The Treatment Of Tendon Injury**

Hua Shen; Ryan Lane; De Chen

Poster No. 1788

**Tendon-mimetic, Nanofibrous Scaffolds Stiffen In Response To Physiologic Cyclic Straining**

Harrison B. Broadaway; Brittany L. Taylor



## LIST OF POSTERS

### Monday, February 10, 2025

1:00 AM - 10:00 AM

Room #: North Hall A-C

#### **PS2-140      Knee - Diagnostics**

Poster No. 1789

#### **Common OA Gait: A Quantitative Grading System For Osteoarthritis Associated Gait Changes In Mice**

Yajun Liu; Cherie Charbonneau; Ashley Knebel; Jing Ding; Qian Chen

Poster No. 1790

#### **Raman Needle Probe Derived Cartilage Biomarkers Predict Cartilage Modulus Better Than Quantitative MRI, Chondral Surface Morphology, And Histopathologic Assessments**

Masumeh Kazemi; Dev R. Mehrotra; Chenhao Yu; Erik E. Ersland; Stefan Zbyn; Farida Korna; Steven J. Staffa; Julie B. Engiles; Xiaojuan Li; Thomas P. Schaer; Mark W. Grinstaff; Mads S. Bergholt; Brian D. Snyder; Michael B. Albro

Poster No. 1791

#### **Associations Of Synovial Nerve Growth Factor And Vascular Endothelial Growth Factor With Pain Characteristics In Patients With Knee Oa**

Koji Aso; Syo Deguchi; Natsuki Sugimura; Masahiko Ikeuchi

Poster No. 1792

#### **Assessing The Intra- And Inter-rater Reliability Of Mono- And Bi-exponential T2\* For Acl Grafts Using Generalizability Theory**

Erica Lee; Tomasz Bugajski; Alonso Figueroa; Manickam Kumaravel; Michael A. Jacobs; Walter R. Lowe; Payam Zandiyeh

Poster No. 1793

#### **Predicting Post-Surgery Functional Outcomes Following Total Knee Arthroplasty**

Bradley Lambert; Jordan Ankersen; Katharine Harper; Thomas Sullivan; Terry Clyburn; Kwan Park; Stephen Incavo



## LIST OF POSTERS

### Monday, February 10, 2025

12:00 AM - 9:00 AM

Room #: North Hall A-C

#### **PS2-141      Knee - Injury and Healing**

Poster No. 1794

##### **Bio-integrative Fixation Of Tibial Tubercle Osteotomy Using Mineral Fiber-reinforced Screws**

Brandon J. Bryant; Scott M. Feeley

Poster No. 1795

##### **A High-Throughput Screening Of FDA-Approved Drugs For Mitigating Cartilage Degradation**

Julie Nguyen; Annie Porter; X. Lucas Lu

Poster No. 1796

##### **Histological Evaluation Of Femoral And Tibial Tunnels In A 9-year Follow-up Case Report Of Posterior Cruciate Ligament Reconstruction With Hamstring Tendon**

Tsubasa Hasegawa; Yuki Okazaki; Takayuki Furumatsu; Shinichi Miyazawa; Yusuke Yokoyama; Masanori Tamura; Koki Kawada; Toshifumi Ozaki

Poster No. 1797

##### **Comparison Between An Augmented Graft And Preserved Ligament Based On MRI And Second-look Arthroscopic Findings After ACL Augmentation**

Takeshi Kanamiya; Rei Kanamiya; Sansen Yoh

Poster No. 1798

##### **Primary Repair For Femoral-side Anterior Cruciate Ligament Tears: A Preclinical Murine Model**

Xueying Zhang; Shenghao Wang; Jiebo Chen; Daoyun Chen

Poster No. 1799

##### **Relationship Between Tibiofemoral Bony Geometry As Characterized By Statistical Shape Analysis And Knee Mechanics In An In Vitro Model**

Erin Berube; Isabella Gomez Hjerthen; Emma Reznick; Lexie Bae; David Shamritsky; Swithin Razu; Jacob Hirth; Joseph Manzi; Danyal Nawabi; Andrew Pearle; Thomas Wickiewicz; Carl Imhauser

Poster No. 1800

##### **The Role Of GPNMB In Osteoarthritis**



## LIST OF POSTERS

Trinity A. Kronk; Alexander Powell; Emily Arellano; Shahabeddin Yazdanpanah; Jacob Moncher; Gabrielle T. Robinson; Zachary Oatley; Abdelrahman Boghdady; Jalal Jwayyed; Nicholas Sciarretti; Mohammad Y. Ansari; Fayez F. Safadi

Poster No. 1801

**A Larger Acl Graft Provides Better Initial Joint Stability And Graft Function In An Early Adolescent Porcine Model**

Yukun Zhang; Kaan Gurbuz; Joshua Chavez-Arellano; Jeffrey T. Spang; Matthew B. Fisher

Poster No. 1802

**Intra-articular Estrogen Improves Functional Mobility Following Anterior Cruciate Ligament Rupture**

Emily M. Van Zeeland; Travis Montoya; Erin Padayachee; Kelly S. Santangelo; Jeremiah T. Easley; Katie J. Sikes

Poster No. 1803

**Developing A Reliable And Reproducible Osteoarthritis In Vivo Rat Model Via Non-invasive Acl Rupture**

Jasmine Doan; Colleen Mathieu; Eric Quenneville; Martin Garon

Poster No. 1804

**Longitudinal Tibiofemoral Joint Space Width Changes After ACL Reconstruction: A Weight Bearing CT Study**

Tyce C. Marquez; Shelby Hulsebus; Shannon Ortiz; Brian Wolf; Don D. Anderson

Poster No. 1805

**Healing Of The Patellar Tendon Graft-site Tendon Gap After ACLR Using APTB Autograft**

Claudia J. Kacmarcik; Naoaki Ito; Karin M Silbernagel

Poster No. 1806

**Enhancing Anterior Cruciate Ligament Reconstruction Classification: A Multi-modal Analysis Of Gait Dynamics And Patient Characteristics**

Xishi Zhu; Emily Jackson; Ryan Henry; Jiaqi Gong; Devin Kelly; Joe Hart

Poster No. 1807

**Sex-specific Modulation Of Gene Expression By 17beta-estradiol In Human Meniscal Cells: Pathways To Targeted Osteoarthritis Therapies**

Youngmin Yu; John Vergis; Jiayong Liu; Robert McCullumsmith



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-142      Knee - Structure, Function and Mechanics**

Poster No. 1808

##### **Dynamic Mode Decomposition Identifies Underlying Strain Patterns In The Medial Collateral Ligament Under Knee Loadings**

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

Poster No. 1809

##### **Bupivacaine And Meloxicam Combination Therapy In A Rabbit Model Of Arthrofibrosis**

Kareme D. Alder; Mason F. Carstens; Cole E. Bothun; Oliver B. Dilger; Ashley N. Payne; Mark E. Morrey; Joaquin Sanchez-Sotelo; Daniel J. Berry; Roman Thaler; Amel Dudakovic; Matthew P. Abdel

Poster No. 1810

##### **Relationship Of Tibial Slope And Knee Laxity To Knee Mechanics With Pivoting Loads: An In Vitro Study**

Erin Berube; Lexie Bae; Emma Reznick; David Shamritsky; Swithin Razu; Joseph Manzi; Jacob Hirth; Andrew Zhu; Danyal Nawabi; Andrew Pearle; Thomas Wickiewicz; Carl Imhauser

Poster No. 1811

##### **Utilizing Weight Bearing Ct To Evaluate Acl Reconstruction Success: A Case Series Of 60 Patients With Up To 12 Months Follow Up.**

Bruno Butturi Varone; Matthew D. Benson; Renata V. Leão; Tyce C. Marquez; Robert W. Westermann; Don D. Anderson

Poster No. 1812

##### **ACL Deficiency Increases Medial Collateral Ligament Strain Under Anterior Tibial Load**

Armin Runer; Anja Wackerle; Michael DiNenna; Benjamin Moyer; William Gamble; Michael Smolinski; Svenga hoeger; Mark Carl Miller; Patrick Smolinski; Volker Musahl

Poster No. 1813

##### **Acl Graft Length Change During Downhill Running Over A 10-year Follow-up**

Koji Nukuto; Tom Gale; Anja Wackerle; James Irrgang; Stephen Rabuck; Volker Musahl

Poster No. 1814





## LIST OF POSTERS

### **Benefits Of Using Functional Joint Coordinate Systems In Knee Research**

Tara F. Nagle; Jeremy Loss; Callan Gillespie; Elizabeth Pace; Robb Colbrunn

Poster No. 1815

### **Does Different Patellar Designs Affect Patellofemoral Biomechanics In Limb Preservation System?**

Amit Mane; Arthur Klein; Christel Wagner

Poster No. 1816

### **Muscle Synergy Composition And 'knee' Kinematics During Walking In Individuals With A Type Ia Rotationplasty**

Kellen T. Krajewski; Nathan Rogers; Mia A. Lundin; Andrea Rogers; Susan Kanai; Lucas Moore; Steven W. Thorpe; James J. Carollo; Patrick M. Carry; David R. Howell; Lauren A. Sepp; Anne K. Silverman; Nathan J. Donaldson

Poster No. 1817

### **Anatomical Variation Of Depth-dependent Shear Mechanics Of Human Knee Cartilage**

Salman O. Matan; Andreas Gomoll; Sabrina Strickland; Itai Cohen; Lawrence J. Bonassar

Poster No. 1818

### **Low Doses Of Flavopiridol Could Protect Tendon And Bone Formation**

Thomas L. Jenkins; Sean Lade; Colin Burns; Kyohei Takase; Seong-Hee Paek; Jasper H.N. Yik; Dominik R. Haudenschild

Poster No 1819

### **Withdrawn**

Poster No. 1820

### **Comparing Methods For Combining Bone Shape Models In The Tibiofemoral Joint With Knee Osteoarthritis**

Edi Zhang; James R. Peters; Xiaojuan Li

Poster No. 1821

### **Comparing Linear And Nonlinear Methods For Modeling Shapes Of The Tibia And Femur In Knee Osteoarthritis**

James R. Peters; Mingrui Yang; Richard Lartey; Carl Winalski; Xiaojuan Li

Poster No. 1822



## LIST OF POSTERS

**Impact Of Sagittal Slope Reducing High Tibial Osteotomy Versus Lateral Extraarticular Tenodesis On Force Carried By Anterior Cruciate Ligament In Knees With Increased Lateral Tibial Slope: A Biomechanical Computational Study**

Reza Pourmodheji; Mark Amirtharaj; Matthieu Olivier; Thomas Wickiewicz; Andrew Pearle; Danyal Nawabi; Carl Imhauser

Poster No. 1823

**Asymmetries In Dynamic Knee Kinematics During Jump Landing After Anterior Cruciate Ligament Reconstruction**

Kristen Seballos; Rodrigo Mateus; Austin Carcia; Armando Vidal; Jonathan Godin; Thomas Hackett; Matthew T. Provencher; Peter Millett; Johnny Huard; Scott Tashman; Colin Smith

Poster No. 1824

**Digital Image Correlation Of Strain Behavior During A Combined Cyclic And Load To Failure Of Porcine Acls**

Kristi Nguyen; Eli Raeker-Jordan; Nirav Mungalpara; Jason Koh; Farid Amirouche

Poster No. 1825

**Total Knee Arthroplasty With Medial Collateral Ligament Repair: A Biomechanical Study**

Leilani Baker; Natalia McIver; Nicholas Brady; Devin Maez; Samer Kakish; Michael Decker; Christina Salas

Poster No. 1826

**The Effect Of Medial And Lateral Tibial Slope Asymmetry On Anterior Tibial Translation, Internal Knee Rotation, And Acl Graft Force In The Setting Of An Acl Reconstruction.**

Justin F.M Hollenbeck; Emily A. Whicker; Michael G. Rizzo; Benjamin B. Rothrauff; Jason P. Sidrak; Natalie Cortes; Wyatt H. Buchalter; Armando F. Vidal; Matthew T. Provencher

Poster No. 1827

**A Prospective Study Of In-silico Knee Mechanics In Response To Pivoting Loads In Female Athletes With A Single Anterior Cruciate Ligament Tear And Female Athletes With A Subsequent Contralateral Anterior Cruciate Ligament Tear**

Andrew E. Pechstein; Mitchell Wheatley; David Shamritsky; Mark Amirtharaj; Aaron Dees; Danyal Nawabi; Thomas Wickiewicz; Michael Parides; Andrew Pearle; Bruce Beynnon; Carl Imhauser

Poster No. 1828

**Single Leg Landing Kinematics Are Associated With Common Clinical Strength And Functional Performance Tasks**

Devin K. Kelly; Jonathan R. Davis; Joe M. Hart



## LIST OF POSTERS

Poster No. 1829

**Biomechanical Analysis Of ACL, PCL, And/or Meniscus Transection In Turkey: A Potential Large OA Animal Model**

Gayatri Kalyan; Lei Wang; Lawrence J. Berglund; Chunfeng Zhao

Poster No. 1830

**Factors Contributing To Medial And Lateral Soft Tissue Stiffness In Total Knee Arthroplasty:an Intraoperative Measurement Using Digital Balancer**

Natsuki Sugimura; Koji Aso; Syo Deguchi; Yusuke Okanoue; Masahiko Ikeuchi

Poster No. 1831

**Effect Of Femoral Length And Meniscus On Knee Joint Mechanics**

Vahid Malbouby; Kalin Gibbons; Clare Fitzpatrick

Poster No. 1832

**Investigation Of Patellofemoral Contact Pressure In Different Fixation Methods For Transverse Patella Fractures Via Finite Element Analysis**

Jasper D. Hoag; Rohan Wangikar; Jason Koh; Farid Amirouche

Poster No. 1833

**Association Between Kinematic And Quantitative Features Of Subchondral Bone Lesions In Patients With Pre- And Early-knee Osteoarthritis.**

Satoshi Kojima; Motoki Kuroo; takahito nakamura; junichi hata; Takanori Kokubun

Poster No. 1834

**In-situ Force Of The Medial Knee Ligaments And Anterior Cruciate Ligament During Anteromedial Loading**

Andrew E. Pechstein; Erin Berube; Mark Amirtharaj; Emma Reznick; Danyal Nawabi; Thomas Wickiewicz; Paul Christos; Andrew Pearle; Carl Imhauser

Poster No. 1835

**Subject-specific Computational Models Capture Experimentally Measured Variability In Acl Force Under Pivoting Loads**

Reza Pourmodheji; Erin Berube; David Zaibert; Emma Reznick; Swithin Razu; David Shamritsky; Joseph Manzi; Jacob Hirth; Danyal Nawabi; Thomas Wickiewicz; Andrew Pearle; Carl Imhauser

Poster No. 1836

**Statistical Parametric Mapping Analysis Of Meniscal Cross-Sectional Area Between Sexes**



# 2025 ANNUAL MEETING

SCIENCE IS OUR CORE

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## LIST OF POSTERS

---

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



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-143      Knee - Surgical and Non-Surgical Interventions**

Poster No. 1837

##### **Optimal Axial MRI Slice Selection And Cutoff Values Of The Osseous Sulcus Angle**

Jason Brenner; Leila Mehraban Alvandi; Steven M. Henick; Edina Gjonbalaj; Benjamin J. Levy; Jacob Schulz; Eric Fornari; Mauricio Drummond Junior

Poster No. 1838

##### **The Osseous Lateral Trochlea-anterior Condyles Angle To Quantify Trochlear Dysplasia**

Jason Brenner; Leila Mehraban Alvandi; Steven M. Henick; Edina Gjonbalaj; Benjamin J. Levy; Jacob Schulz; Eric Fornari; Mauricio Drummond Junior

Poster No. 1839

##### **Straight Anteriorization Tibial Tubercle Osteotomy Is Safe And Effective For Patellofemoral Cartilage Lesions**

Nathan Varady; Arjun Khorana; Riley Williams

Poster No. 1840

##### **Increasing Posterior Tibial Slope Increase The In-situ Force In ACL Under Combined Anterior And Compression Load**

Tianyu Chen; Jumpei Inoue; Enes Kayaalp; Luke Mattar; Richard Debski; Volker Musahl

Poster No. 1841

##### **Evaluating The Accuracy Of The Current Algorithm For Planning Anterior Closing Wedge High Tibial Osteotomies**

Sarah A. Shegogue; Luke T. Mattar; Anja M. Wackerle; Jaren C. Lagreca; Richard E. Debski; Volker Musahl

Poster No. 1842

##### **Short-term Outcomes For Patients Undergoing Fresh Meniscus Allograft Transplantation In The Knee**

Kylee Rucinski; James Stannard; Clayton Nuelle; Cory Crecelius; Crystel Cook; Shen-Ying (Richard) Ma; James Cook

Poster No. 1843

##### **What Is The Age-dependent Risk Of Total Knee Arthroplasty Following Partial Meniscectomy?**



## LIST OF POSTERS

Hania Shahzad; Shannon Tse; David Dallas-Orr; J.B. Smith; John P. Meehan; Mauro Giordani; Safdar N. Khan; Zachary C. Lum

Poster No. 1844

**Does Posterior Tibial Slope Influence The Protective Effect Of Lateral Extra-articular Tenodesis In Anterior Cruciate Ligament Reconstruction?**

Hongjia He; Kyle Borque; Robert Frangie; Walter Lowe; Nicholas Dunbar

Poster No. 1845

**Bone-tendon-bone Yields Improved Quadriceps Strength Deficits During Knee Extension Compared To Quadriceps Tendon After Acl Reconstruction: A Preliminary Study**

Amanda Davis; Tomasz Bugajski; Alonso Figueroa; Walter Lowe; Payam Zandiyeh

Poster No. 1846

**Biomechanical Evaluation Of Anterolateral Ligament Reconstruction Using Semitendinosus Allograft With Internal Brace Augmentation: A Cadaveric Study**

Tara F. Nagle; Vincent Lizzio; Elizabeth Pace; Robb Colbrunn; Paul Saluan

Poster No. 1847

**No Difference In Anterior Cruciate Ligament Reconstruction Graft Failure With Suture Augmentation In Adolescents**

Matthew Brown; Lisa Tamborini; Adam Weaver; Donna Pacicca; Allison Crepeau

Poster No. 1848

**Cryopreservation Of Porcine Intact Tibial Plateau Using Vitrification**

Korinne M. Tirones; Mohammadhamed Shahsavari; Evan J. C. Andrin; Janet A. W. Elliott; Nadr M. Jomha

Poster No. 1849

**Risk Factors For Manipulation Under Anesthesia Following Total Knee Arthroplasty: An Analysis Of 15,139 Manipulations Under Anesthesia**

Avinash Iyer; McKenzie Culler; Sagar Telang; Ryan Palmer; Jay Lieberman; Nathanael D. Heckmann

Poster No. 1850

**Does Medial Collateral Ligament Repair With Internal Bracing Restore Native Joint Stability And Strength? An In Vitro Biomechanical Study**

Nahir A. Habet; Ryan Serbin; Claude Moorman; Shangcheng Wang; Susan Odum; Kerry Danelson; Taylor Lokai; Eric Kropf; Mario Cauadra; Derek Parshall; Justin T. Smith

Poster No. 1851



## LIST OF POSTERS

**Onlay Fixation With An All-Suture Anchor Provides Sufficient Biomechanics For Lateral Extra-Articular Tenodesis**

Marcos Tejada; Rachel Frank; Brian Werner; Oliver Hauck; Coen Wijdicks

Poster No. 1852

**Short-term Outcomes Of A Novel, Personalized Revision Knee System**

Zoe Alpert; Sophia Antonioli; Anzar Sarfraz; Vinay K. Aggarwal

Poster No. 1853

**Indications And Outcomes Of Total Knee Arthroplasty In Patients Aged 15-45**

Philip P. Ratnasamy; Michael J. Gouzoulis; Stephanie V. Kaszuba; Katelyn E. Rudisill; Rajiv S. Vasudevan; Jonathan N. Grauer; Lee E. Rubin

Poster No. 1854

**Biomechanical Analysis Of Fibular-based Posterolateral Corner Reconstruction With Internal Brace Augmentation: A Comparison To Intact State And Reconstruction Without Internal Brace**

Nahir Habet; Haley Smith; Shangcheng Wang; Edward G. Carey; Susan Odum; Anna Iffraguerri; Taylor Lokai; James Fleischli; Bryan M. Saltzman

Poster No. 1855

**Offloading Patellofemoral Contact Pressures: A Biomechanical Comparison Between Tibial Tubercle Osteotomy And A Retropatellar Tendon Implant**

Erik Haneberg; Andrew Phillips; Tristan Elias; Ron Gilat; Kevin Credille; Zachary Wang; Elizabeth Frankenburg Shewman; Adam B. Yanke

Poster No. 1856

**Saline Irrigation Mitigates Chondrocyte Death During Trochleoplasty**

Adam Yanke; Andrew Phillips; Erik C. Haneberg; Kofi K. Acheampong; Richard Danilkowicz; Vince Morgan; Brian Cole

Poster No. 1857

**Dynamic Stereo Xray Measurements And Musculoskeletal Simulations Indicate That Altered Muscle Coordination Is The Primary Cause Of Abnormal Knee Mechanics After Anterior Cruciate Ligament Reconstruction**

Colin R. Smith; Austin Carcia; Kristen Seballos; Armando Vidal; Jonathan Godin; Thomas Hackett; Matthew Provencher; Peter Millett; Johnny Huard; Scott Tashman



## LIST OF POSTERS

---

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-144      Meniscus - Growth, Development and Aging**

Poster No. 1858

##### **Diffusion Tensor Imaging In Human Meniscus**

Jie Chen; Luisa de Roy; Saira Tabassam; Pratham Eddula; Fang Liu; Andreas Seitz; Nian Wang

Poster No. 1859

##### **Significance Of Joint Movement In The Developmental Process Of The Mouse Meniscus**

Himari Miyamoto; Yuna Usami; Takanori Kokubun

Poster No. 1860

##### **Substrate Stiffness Modulate Matrix Forming Phenotype Of Human Meniscus Fibrochondrocytes**

Xiaomeng Liu; Melanie Kunze; Jilian Seikaly; Gordie Seikaly; Madeline Barker; Zhiyao Ma; Adetola Adesida

Poster No. 1861

##### **Altered Transcriptional Landscape And Emergent Region-dependent Mechano-response In The Developing Porcine Meniscus**

Yuqi Zhang; Meghan Kupratis; Giorgos Kotsaris; Nathaniel Dymant; Lin Han; Eiki Koyama; Robert Mauck





## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-145          Meniscus - Injury and Healing**

Poster No. 1862

#### **Regional Size And Biochemical Changes In The Meniscus After Acl Injury In A Skeletally Immature Porcine Model**

Margaret Easson; Rachel Morris; ELizabeth Keeley; Lauren Schnabel; Jeffrey Spang; Matthew Fisher

Poster No. 1863

#### **Medial Meniscus 3D T2\* Mapping At 7 Tesla Before And After Repair Of The Posterior Root Tear: A Pilot Study**

Abdul Wahed Kajabi; Karsten Knutsen; Eisa Hedayati; Collin Steinberger; Abhinav Lamba; Stefan Zbyn; Jesse Smith; Morgan Homan; Luke Tollefson; Gregory Metzger; Robert LaPrade; Jutta Ellermann

Poster No. 1864

#### **Engineered Matured Human Meniscus Tissues In 3d Printed Flexible Scaffold With Stepwise Differentiation**

Lauren A Burgett; Hun Jin Jeong; Elen Zhu; Min Seo Kang; Chang Lee

Poster No. 1865

#### **Targeted Delivery Of Anti-inflammatory And Anabolic Therapeutics Promote Tissue Formation In A Porcine Meniscus Injury Model**

Elisabeth Lemmon; Meghan Kupratis; Kevin Browne; Elizabeth Bernstein; Lorielle Laforest; Eric Schweppe; Lin Han; Robert Mauck

Poster No. 1866

#### **The Presence Of Migratory And Contractile Meniscus Fibrochondrocytes : Implications In Avascular Meniscus Repair In An In Vitro Pig Model**

Shikha Chawla; Zhiyao Ma; Oliver Osswald; Jillian Seikaly; Gordie Seikaly; Aillette Mulet Sierra; Melanie Kunze; Adetola B. Adesida



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North 227

#### **PS2-146      Meniscus - Structure, Function and Mechanics**

Poster No. 1867

#### **Exploring The Impact Of Simulated Microgravity On Osteoarthritis Development: The Role Of Cd36 And Sex-specific Responses In A Mouse Model**

Hilda Ma; Haiming Lin; Daniel Graf; Maria Febbraio; Adetola Adesida

Poster No. 1868

#### **The Importance Of The Mechanical Function And Deformation Of The Meniscus Inner Part Under Knee Loading**

Satoshi Yamakawa; Toshitaka Tsunematsu; Issei Ogasawara; Tomoki Ohori; Akira Tsujii; Shoji Konda; Seira Sato; Takashi Kanamoto; Ken Nakata

Poster No. 1869

#### **Investigation Of Age-related Changes In Rat Meniscus Root Stiffness By Tensile Test**

Ryota Seki; Hiroki Katagiri; Tomomasa Nakamura; Kazumasa Miyatake; Yusuke Nakagawa; Nobutake Ozeki; Mai Katakura; Takashi Hoshino; Masaki Amemiya; Ichiro Sekiya; Hideyuki Koga

Poster No. 1870

#### **The Effects Of Lateral Meniscus Posterior Root Tear And Its Repair On Knee Stability Of Internal Rotation And Forward Shift: A Biomechanical Kinematics Cadaver Study**

Yansong Qi

Poster No. 1871

#### **Bmp-2 Induces Dose-dependent Hypertrophy Of Fibrochondrocytes For Meniscal Entesis Tissue Engineering**

Carlos Y. Urrea De La Puerta; Lawrence J. Bonassar



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-147      Meniscus - Treatment and Therapeutics**

Poster No. 1872

#### **Mechanical Priming Of Fibrochondrocyte-derived Extracellular Vesicles To Enhance Meniscus Regeneration**

Catherine Cheung; Zizhao Li; Yoonho Roh; Jina Ko; Su Chin Heo

Poster No. 1873

#### **Changes In Postoperative Quadriceps Strength After Meniscal Repair**

Ryota Shimozono; TAKAHIRO YAMASHITA; Shu Watanabe; Yuya Ueda; Daisuke Araki

Poster No. 1874

#### **Microenvironmental Composition Guides Cellular Alignment Plasticity And Precise Matrix Deposition For Meniscus Tissue Engineering**

Saitheja A. Pucha; Maddie M. Hasson; Tristan Pepper; Jenny L. Robinson; Jay M. Patel

Poster No. 1875

#### **Comparison Of Medial Meniscal Extrusion In Medial Meniscus Posterior Segment Complete Radial Tear Between Inside-out And All-inside Meniscus Repair Techniques: A Cadaveric Study**

Horita Kazushi

Poster No. 1876

#### **Coating Of Meniscus And Cartilage Of Osteoarthritic Rats And Rabbits Following Intraarticular Injection Of MM-II, A Dispersion Of Empty Large Multilamellar Liposomes**

Roni Wechsler; Rany Rotem

Poster No. 1877

#### **Biomechanical Comparison Of Transtibial Fixation Versus Suture-anchor Fixation for Repair Of Medial Meniscal Posterior Root Tears**

Justin F.M. Hollenbeck; Mark E. Cinque; Maximilian Hinz; Jason P. Sidrak; Wyatt H. Buchalter; Natalie Cortes; Ajay C. Kanakamedala; Jonathan A. Godin; Matthew T. Provencher

Poster No. 1878

#### **The Effects Of Elderberries And Soybean Polyphenols On Responses Of Meniscal Cells To Inflammatory Stimulation**

As of 2.5.2025



## LIST OF POSTERS

---

Lara Stefani; Lloyd Sumner; Aaron Stoker

Poster No. 1879

**Morphological And Biomechanical Evaluation Of Repair Process After Implantation Of A Novel Mechanically reinforced Atelocollagen Meniscus Substitute For Meniscal Defects In Miniature Pig Model**

Satoshi Yamakawa; Hiroyuki Yokoi; Takashi Kanamoto; Toshitaka Tsunematsu; Akira Tsujii; Tomoki Ohori; Kosuke Ebina; Yasuhiro Take; Tatsuo Mae; Kazunori Yonetani; Kazunori Shimomura; YUTA TACHIBANA; Hideki Yoshikawa; Ken Nakata

Poster No. 1880

**Declining Opioid Prescriptions Following Meniscal Repair From 2011 To 2021**

Justin Zhu; Ismail Ajjawi; Andrew Jimenez; Wesley Day; Serkan Surucu; Scott Fong; Jonathan Grauer

Poster No. 1881

**Biomechanical Analysis Of Posterior Segmental Medial Meniscal Transplantation In A Human Cadaveric Model**

Justin FM Hollenbeck; Mark E. Cinque; Jonathan D. Haskel; Wyatt H. Buchalter; Bradley M. Kruckeberg; Matthew T. Provencher; Jonathan A. Godin



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### PS2-148 Hip - Diagnostics

Poster No. 1882

##### **Closed Reduction Of Posterior Hip Fracture-dislocations With An Interposed Posterior Wall Fragment**

Connor C. Park; Christian G. Falgons; Jonathan G. Eastman; Milton L. Routt; Jonahs Galloway; Samantha Gardner; Stephen J. Warner

Poster No. 1883

##### **Analysis Of Up-regulated Microrna In Synovial Fluid On Osteonecrosis Of The Femoral Headosteonecrosis Of The Femoral Head**

Hideki Shozen; Takeshi Shoji; Shinichi Ueki; Hiroki Kaneta; Yosuke Kozuma; Hiroyuki Morita; Nobuo Adachi

Poster No. 1884

##### **Diffusion MRI To Examine Differences In Hip Muscle Fractional Anisotropy In FAI**

Hannah Traynor; Lauren Schonwalder; Ricardo AR Carrillo; Paul Dubovan; Corey A. Baron; David J. Wang; Ryan M. Degen; Geoffrey Ng

Poster No. 1885

##### **Effects Of Hip Morphology On Impingement-Free Range Of Motion: A 3D Static And Dynamic Analysis Of 2,964 Hips**

Mohammadreza Movahhedi; Eduardo Novais; Young-Jo Kim; Ata M. Kiapour



## LIST OF POSTERS

---

**Monday, February 10, 2025**

10:00 AM - 7:00 PM

Room #: North Hall A-C

**PS2-149 Hip - Growth, Development and Aging**

Poster No. 1886

**Withdrawn**

Poster No. 1887

**Visualization And Analysis Of Acetabular Osteophytes In Hip Dysplasia Using 3DCT And Radar Charts**

Takahiro Igei; Satoshi Nakasone; Mika Takaesu; Fumiyuki Washizaki; Sakura Kuniyoshi; Kotaro Nishida



## LIST OF POSTERS

---

### **Monday, February 10, 2025**

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-150 Hip - Injury and Healing**

Poster No. 1888

#### **Intra-articular Hip Injections Are Safe For A Majority Of People**

Chase Gornbein; Amy Wozniak; Nicholas Brown; Stacey Bennis

Poster No. 1889

#### **Femoral Head Fractures: Can We Change Outcomes?**

Caleb J. Bischoff; Samuel C. Marshall; Emily V. Leary; Brett D. Crist

Poster No. 1890

#### **Traumatic Hip Dislocations Associated With Acute Aortic Injury: A Dangerous Injury Complex That Remains Pertinent**

Connor C. Park; Christian G. Falgons; Milton L. Routt; Ryan D. DeAngelis; Stephen J. Warner



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-151 Hip - Structure, Function and Mechanics**

Poster No. 1891

##### **Significance Of Labral Injury In Joint Preservation Surgery For Developmental Dysplasia Of The Hip.**

Yuki Ogawa; Tomohiro Shimizu; Daisuke Takahashi; Norimasa Iwasaki

Poster No. 1892

##### **Conjoined Tendon Role In Hip Stability After Total Hip Arthroplasty: A Cadaver Study**

Gongyin Zhao; Yuji Wang

Poster No. 1893

##### **Co-axiality: A Comparative Analysis Of Taper Locks At Clinically Relevant Impaction Angles**

Akeem Downer; Ilissa Hamilton; Sharon Gaukler; Shammodip Roy; Ananth Gopalakrishnan; Anika Agnihotri; Dennis Nam

Poster No. 1894

##### **Cam FAI Reduces Joint Stability And Leg Reach During Balance And Postural Control Tasks**

Mohamad EF Shatila; Etienne Joulin; Suhwan Park; Trevor B. Birmingham; Ryan M. Degen; Geoffrey Ng

Poster No. 1895

##### **Effects Of Sagittal Pelvic Tilt On The Biomechanics Of The Necrotic Femoral Head: a Finite Element Analysis**

Mingjian Xu

Poster No. 1896

##### **Accuracy Of A Wear Time And Body Orientation Sensor For Integration Into A "Smart" Pavlik Harness**

Sabrina Mead; Erin M. Mannen

Poster No. 1897

##### **Statistical Shape Modelling To Compare Anatomical Differences In Individuals With Bilateral Symptomatic FAI**

Jefi Lin; Cassidy Fu; Aashish Goela; Ryan Degen; Geoffrey Ng





## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-152 Hip - Surgical and Non-Surgical Interventions**

Poster No. 1898

##### **Bone Marrow Aspirate Concentrate Is A Cost-effective Treatment For Preventing Conversion To Total Hip Arthroplasty Following Arthroscopic Acetabular Labral Repair**

Jonathan Lee; Stephen Gillinov; Bilal Siddiq; Kieran Dowley; Rohit Rachala; Nathan Cherian; Jeffrey Mun; Srish Chenna; Scott Martin

Poster No. 1899

##### **Knotted Versus Knotless Suture Bridge Repair Of Proximal Rectus Femoris Insertion - A Biomechanical Study**

Justin F.M Hollenbeck; Haruki Nishimura; Shintaro Mukohara; Kiminari Kataoka; Amelia H. Drumm; Natalie Cortes; Wyatt Buchalter; Soshi Uchida; Marc Philippon

Poster No. 1900

##### **6-month Functional Scores Predict 5-year Outcomes After Hip Arthroscopy**

Stephen M. Gillinov; Jonathan S. Lee; Bilal S. Siddiq; Kieran S. Dowley; Nathan J. Cherian; Christopher T. Eberlin; Jeffrey S. Mun; Brandon J. Allen; Scott D. Martin

Poster No. 1901

##### **Withdrawn**

Poster No. 1902

##### **Evaluating Commonly Used Artificial Intelligence Model Responses To Frequently Asked Hip Arthroscopy Questions**

Jeffrey S. Mun; Rachel L. Poutre; Brandon J. Allen; Srish C. Chenna; Stephen M. Gillinov; Bilal S. Siddiq; Nathan J. Cherian; Christopher T. Eberlin; Richard M. Wilk; Scott D. Martin

Poster No. 1903

##### **Appropriately Managed Os Acetabuli Do Not Portend Inferior 2-year Functional Outcomes In Patients Undergoing Arthroscopic Acetabular Labral Repair**

Bilal S. Siddiq; Jeffrey Mun; Michael C. Dean; Stephen Gillinov; Jonathan Lee; Kieran Dowley; Nathan Cherian; Rachel L. Poutre; Scott D. Martin

Poster No. 1904



## LIST OF POSTERS

### **6-step Prehabilitation And Rehabilitation For Endoscopic Full-thickness Abductor Tendon Tear Repair**

Jonathan S. Lee; Stephen M. Gillinov; Bilal S. Siddiq; Kieran S. Dowley; Nathan J. Cherian; Christopher T. Eberlin; Jeffrey S. Mun; Brandon J. Allen

Poster No. 1905

### **All-Arthroscopic Capsular Autograft Hip Labral Reconstruction: Minimum 5-year Outcomes**

Jeffrey S. Mun; Brandon J. Allen; Rachel L. Poutre; Srish S. Chenna; Stephen M. Gillinov; Bilal S. Siddiq; Nathan J. Cherian; Christopher T. Eberlin; Michael P. Kucharik; Scott D. Martin

Poster No. 1906

### **Biomechanical Evaluation Of The Surgical Reconstruction For Chronic Hamstring Injury: Comparison Of Using An Achilles Tendon Graft And Distal Hamstring Graft**

Justin F.M. Hollenbeck; Haruki Nishimura; Shintaro Mukohara; Kiminari Kataoka; Amelia H. Drumm; Natalie Cortes; Wyatt Buchalter; Soshi Uchida; Marc J. Philippon

Poster No. 1907

### **Return To Sport In Elite-level Athletes Undergoing Hip Arthroscopy: A Systematic Review**

Kevin G. Girardi; Anshu Jonnalagadda; Kian Kardestuncer; Michael Lee; Soheil Sabzevari; Andrew Jimenez

Poster No. 1908

### **Simplified Method For Assessing Femoral Broaching And Stem Insertion Endpoints For Hip Arthroplasty**

David W. Rister; Mouhsin El-Chafei

Poster No. 1909

### **Subspecialization: The Effect Of Subspecialty On Femoral Neck Fracture Surgery**

Justin Zhu; Ismail Ajjawi; Lucas Kim; Serkan Surucu; Jonathan Grauer

Poster No. 1910

### **Fibromyalgia Is Associated With Increased Incidence Of Revision Hip Arthroscopy And Rates Of Opioid Prescriptions After Primary Hip Arthroscopy: A National Database Study**

Scott Fong; Kevin Girardi; Michael Lee; James MacLeod; Peter Monahan; Stephen Gillinov; Ronak Mahatme; Jay Moran; Andrew Jimenez



## LIST OF POSTERS

---

**Monday, February 10, 2025**

1:00 AM - 10:00 AM

Room #: North Hall A-C

**PS2-153      Tumors - Genetics**

Poster No. 1911

**Chaetoglobosin A Induced Human Osteosarcoma Cells Apoptosis By Targeting The Edn1 Expression**

Renn-Chia Lin



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-154 Tumors - Metastatic**

Poster No. 1912

#### **Evaluation Of Spinal Instability With SINS And SUVmax On<sup>18</sup>F-FDG PET-CT In Patients With Spinal Metastases**

Yusuke Aoki; Hiromichi Oshiro; Takanao Shimabukuro; Hideo Kinjo; Yoshimaro Miyahira; Yasunori Tome; Kotaro Nishida

Poster No. 1913

#### **Withdrawn**

Poster No. 1914

#### **Diosmetin Inhibits Osteosarcoma Cell Metastasis By Targeting Bhlhe41 And Hif-1 $\alpha$ Via Mapk And Akt Pathways**

Peace Wun-Ang Lu

Poster No. 1915

#### **Cancer-associated Osteoblasts Exhibit Morphological Abnormalities And Inhibited Mineral Deposition In An Engineered Bone Metastatic Niche**

Sarah Nano; Laurie Littlepage; Laoise McNamara; Glen Niebur

Poster No. 1916

#### **Breast Cancer Treatment-related Factors Affecting Time To Bone Metastasis**

Ruhi Thapar; Ryan X. Lam; Stephanie Trejo Corona; Macy Bell; Jacob Scioscia; Ameer Zaman; Jiya Bhatia; Shelly Sharma; Ahmed Elkhanany; Lorenzo Deveza

Poster No. 1917

#### **Clinical Outcomes Of Spinal Metastases: A Comparative Study Between Breast Cancer And Other Malignancies**

Caleb C. Witsken; Weijia Zhou; Jad Lawand; Kathy B. Cao; Lorenzo Deveza



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-155 Tumors - Primary Tumors**

Poster No. 1918

##### **Spatial Transcriptomic Analysis Of Neurofibroma And Mpnst Using The Visium System**

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

Poster No. 1919

##### **Predictors Of Early Metastases In Soft Tissue Sarcoma Using Nutritional And Inflammatory Markers**

Tomotaka Yoshida; Keiju Saito; Akira Shiga; Shintaro Fujita; Naotsugu Nakajima; Hyonmin Choe; Masanobu Takeyama; Yutaka Nezu; Yutaka Inaba

Poster No. 1920

##### **Sex Differences In The Association Of Alcohol Consumption With The Risk Of Soft Tissue Sarcoma: A Nationwide Population-based Retrospective Cohort Study**

Min Wook Joo; Yoon Joo Cho; Jewoo Lee; Minpyo Lee; Nicholas Matthew Bernthal

Poster No. 1921

##### **Lactate Promotes Osteosarcoma Progression By Modulating Mitochondrial Dynamics**

Shambhavi Bhagwat; Matthew Goodwin

Poster No. 1922

##### **Solitary Fibrous Tumor Of The Proximal Femur: A Case Report And Review Of Musculoskeletal Literature**

Dev Laungani; Bhargavi Maheshwar; Brandon Jonard



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-156 Tumors - Treatment and Therapeutics**

Poster No. 1923

#### **Novel Therapeutic Targets For Osteosarcoma Based On Induction Of Osteogenic Differentiation**

Makoto Takeuchi

Poster No. 1924

#### **Violet Light Induces Apoptosis Via Ros In Chordoma**

Shunsuke Tamaki; Keisuke Nishidono; Toshihiko Nishisho; Koichi Sairyo

Poster No. 1925

#### **Controlled Intra-tumoral Delivery Of Doxorubicin From A Ceramic Biomaterial For Treatment Of An Orthotopic Osteosarcoma In Mice**

Tova Corbascio; Hadis Alidadi; Jintian Huang; Mathias Lidgren; Jacob Engellau; Lars Lidgren; Magnus Tagil; Deepak Raina

Poster No. 1926

#### **Curcumin Analog Go-y030 Triggers Jnk And P38 Signaling To Activate Apoptosis In Human Osteosarcoma Cells**

Ko-Hsiu Lu

Poster No. 1927

#### **Targeting Cancer Senescence In 3D Models Of Tumor-bone Metastases**

Mansoureh Mohseni Garakani; Eleane Hamburger; Lisbet Haglund; Derek Rosenzweig

Poster No. 1928

#### **Anthracyclines Induce Muscle Progenitor Cellular Senescence Through Mitochondrial Unfolded Protein Response**

Elizabeth van der Bijl; Jonathan Morris; Young Jang



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### PS2-157 Clinical Research - Big Data Research

Poster No. 1929

##### **Machine Learning Models Based On A National-scale Cohort Predict Delirium In Patients Following Proximal Femoral Fracture Surgery**

Anisha E. Gemmy; Sina Afzal; Marium Raza; Pengwei Xiao; MohammadAmin RezazadehSaatlou; Zhijun Li; Michelle Shimizu; Oh-Jak Kwon; Tony Lin-Wei Chen; Anirudh Buddhiraju; Isaiah Freeman; William Sampson; Young-Min Kwon

Poster No. 1930

##### **Performance Of Machine Learning Models In Predicting Adverse Cardiac Events Following Proximal Femoral Fracture Surgery: Analysis Of 184,743 Patients In A National Database**

Oh-Jak Kwon; Pengwei Xiao; Michelle R. Shimizu; Marium Raza; Sina Afzal; MohammadAmin RezazadehSaatlou; Zhijun Li; Anisha Gemmy; William T. Sampson; Anirudh Buddhiraju; Tony Lin-Wei Chen; Isaiah Freeman; Young-Min Kwon

Poster No. 1931

##### **Characterizing New-onset Depression Following Hip Fracture Surgery In Geriatric Patients Without Prior Psychiatric History**

Gwyneth Maloy; Wesley Day; Philip Ratnasamy; Rushabh Doshi; Jonathan Grauer

Poster No. 1932

##### **Pathological Femoral Fractures Do Not Increase The Risk Of THA Revision Compared To Traumatic**

Youssef Khalafallah; Dion Birhiray; Jad Lawand; Caleb Witsken; Lorenzo Deveza

Poster No. 1933

##### **Arthroplasty As A Life-saving Intervention: Lessons From Wearables, Machine Learning, And Epidemiology.**

Tim Lindsay; Justin Cobb

Poster No. 1934

##### **Analysis Of Postoperative Visit Billing In Total Joint Arthroplasty: A Six-year Review Of Cpt Code 99024 Utilization**

David Dallas-Orr; Hania Shahzad; Shannon Tse; J.B. Smith; John P. Meehan; Mauro Giordani; Safdar N. Khan; Zachary C. Lum

As of 2.5.2025



## LIST OF POSTERS

Poster No. 1935

**Critical Appraisal Of Pelvic Fracture Publications In The National Trauma Data Bank**

Reginald Conley; Zodina Beiene; Charlotte Lenz; Meir Marmor

Poster No. 1936

**Incorporating MRI Features Improves Predictive Modeling Of Change In Patient-reported Outcomes For Chronic Low Back Pain Patients**

Sachin Umrao; Patricia Zheng; Jay A. Kaiser; Noah Bonnheim; Aaron Fields; Abel Torres-Espin; Conor O'Neill; Jeffrey Lotz; Thomas A. Peterson

Poster No. 1937

**Investigating The Performance Of Predictive Models For 1-year Mortality In Spinal Metastatic Disease Across Temporal Cohorts**

Hamid Ghaednia; Neev Mangal; Jack Austen; Jason Moore; Dan Tobert; Joseph Schwab

Poster No. 1938

**Withdrawn**

Poster No. 1939

**National Trends Of Spinal Cord Stimulator Utilization And Trial-to-implant Progression Between 2010 And 2021**

Wesley Day; Gwyneth Maloy; Kenneth B. Chapman; Adam Winter; Arya G. Varthi; Mitchell Fourman; Rushabh Doshi; Philip P. Ratnasamy; Jonathan N. Grauer

Poster No. 1940

**Withdrawn**

Poster No. 1941

**Surgical Outcomes For Lower Extremity Soft Tissue Injuries In Patients With Anorexia And Bulimia: A Comprehensive Database Study**

Jackson Woodrow; David Deckey; Jack Haglin; Eugenia Lin; Jose Iturregui; Karan Patel; Callie Davies; Steven Poon; Joshua Bingham

Poster No. 1942

**Trends In Metacarpal Fracture Management: A National Database Study**

Albert L. Rancu; Wesley Day; Abidemi A. Aregbe; Paula Flores Perez; Katelyn Lewis; Jonathan N. Grauer; David L. Colen

Poster No. 1943





## LIST OF POSTERS

---

**Increasing Utilization Of Multimodal Pain Management Regimens Following Distal Radius Fracture Fixation**

Philip P. Ratnasamy; Peter Y. Joo; Beatrice M. Katsnelson; Xuan Luo; Jonathan N. Grauer

Poster No. 1944

**Postoperative Outcomes In Non-tobacco Nicotine Users And Tobacco Users Following Distal Radius Fixation**

Hetsinhji Chavda; Mohammed Abdullah; Tarun Sontam; William Hlavinka; Stephen Liu

Poster No. 1945

**Application Of Machine Learning In Predicting Iatrogenic Compensatory Mechanisms After Adult Spinal Surgery**

Russell Chow; Saba Pasha`

Poster No. 1946

**Timing Of Adverse Events Following Distal Radius Fracture Open Reduction And Internal Fixation**

Beatrice M. Katsnelson; Albert L. Rancu; Abidemi Aregbe; Philip P. Ratnasamy; Wesley Day; Jonathan N. Grauer

Poster No. 1947

**The Orthopaedic Impact Of Firearm Injuries: Trends In Gunshot-related Fractures**

Justin Zhu; Ismail Ajjawi; Serkan Surucu; Jonathan Grauer



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-158 Clinical Research - Clinical Research Methods**

Poster No. 1948

#### **The Impact Of Lymphedema And Obesity On Peri-Incisional Perfusion And Post-Operative Outcomes After Total Knee Arthroplasty**

William Sgrignoli; Victoria C. Tappa; Steven Leary; Jacob M. Elkins

Poster No. 1949

#### **Wearable Sensors Measure Wear Time And Step Count In Immobilizing Boots For Achilles Tendon Rupture**

Stanton Godshall; Michelle P. Kwon; Daniel Farber; Anthony Ndu; Casey Jo Humbyrd; Josh R. Baxter; Lorraine AT Boakye

Poster No. 1950

#### **High Depressive Burden Is Associated With Worse Patient Reported Outcomes After Lumbar Fusion**

Chloe K. Herczeg; Jonathan Dalton; Rajkishen Narayanan; Alec M. Giakas; Robert Oris; Rachel Huang; Joydeep Baidya; Jarod Olson; Jose Canseco; Alan S. Hilibrand; Alexander R. Vaccaro; Christopher K. Kepler; Gregory D. Schroeder; John J. Mangan

Poster No. 1951

#### **Exploring Pre-operative Knee Extension Range Of Motion As A Predictor Of Patient Outcomes Post-total Knee Arthroplasty: A Prospective Study**

Yanal Kawaleet; Aisha Suhaiba; Nirav Mungalpara; Apurva Choubey; Brett Drake; Crystal Lin; Julio Castillo Tafur; Austin Le; Moahmed Gaballah; Omoregie Aideyman; Ethan Taira; Leena Abbas; Idris Hanidu; Joseph Karam; Samuel Chmell; Mark Gonzalez

Poster No. 1952

#### **Withdrawn**

Poster No. 1953

#### **Influence Of Funding Sources And Conflicts Of Interest On Outcomes In Spine Surgery Research**

Jarod Olson; Omar Tarawneh; Jonathan Dalton; Rajkishen Narayanan; Nicholas Pohl; Michael McCurdy; Marco Goldberg; Samuel Duggan; Pranav Jain; Joydeep Baidya; Rachel Huang; Jose Canseco; Alan S. Hilibrand; Alexander Vaccaro; Christopher Kepler; Gregory Schroeder



## LIST OF POSTERS

---

Poster No. 1954

**Validation Of Two Highly Accessible Pain Instruments To Assess Pain And Disability In Spine Patients**

Jennifer A. Bowden; Ryan Powers; Joshua Jensen; Camron Chugg; Clayton Rawson; Tipsuda Bahri



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### PS2-159 Clinical Research - Health Equity

Poster No. 1955

##### **Patient Perceptions Of Technology Use In Orthopaedic Surgery**

Nicole J. Newman-Hung; Charlotte F. Wahle; Yifan V. Mao; Kameel Khabaz; Kodi K. Azari; Prosper Benhaim; Alexander B. Christ; Alexandra Stavrakis; Nicholas M. Bernthal; Lauren E. Wessel

Poster No. 1956

##### **Patients Screening Positive For Social Determinants Of Health Disparities Less Likely To Receive Total Joint Arthroplasty**

Lucas Y. Kim; Nicole Nishime; Jeremy Ansah-Twum; Jonathan N. Grauer; Daniel H. Wiznia

Poster No. 1957

##### **Assessment Of The Factors Associated With Increased Women Representation Among Orthopaedic Surgery Faculty**

Albert Dweck; Jason Brenner; Yossef Rubinov; Eliana Weinstein; Alexa Karkenny

Poster No. 1958

##### **Can Chatgpt Provide Accurate, Age-specific Information For Pediatric Patients With Common Orthopedic Diagnoses And Procedures?**

Cole T. Payne; Andrew K. Morse; Brendan T. O'Reilly; Rohini Vanodia; Lindsey Crawford; Alfred A. Mansour; Surya N. Mundluru; Brenan P. Roper; Shiraz A. Younas; Timothy C. Borden

Poster No. 1959

##### **Socio-demographic Disparities In Long Bone Fractures: Level-1 Trauma Center Retrospective Cohort Study**

Henry Avetisian; Ivette Chen; Jacob Geiger; Ellen Lutnick; Jamie Bousleiman; Fernando Bomfim; Andrew Ngov; Sonja Pavlesen; Mark Anders

Poster No. 1960

##### **The Impact Of Social Determinants Of Health In Reverse Total Shoulder Arthroplasty For Proximal Humerus Fracture**

Kwabena Adu-Kwarteng; Kiera Lunn; Jessica Welch; Alaowei Amanah; Megan Badejo; Rafeal Baker; Yaw D. Boachie-Adjei; Christian Pean; Oke Anakwenze



## LIST OF POSTERS

Poster No. 1961

**Primary Language Spoken: Effects On Thoracolumbar Trauma Outcomes In A Single Center Retrospective Cohort Study**

Zhi Mei S. He; Maggie Wang; Dion Birhiray; Lorenzo Deveza

Poster No. 1962

**Comparative Analysis Of Various Socioeconomic Indices After Total Hip And Knee Arthroplasty**

Nezar Abunnur; Nirav Mungalpara; John Alvarez; Seth Roge; Joseph Karam; Samuel Chmell; Mark Gonzalez

Poster No. 1963

**Analyzing Orthopaedic Workforce Trends In An Ever-changing Landscape**

Roshan V. Patel; Numair Attaar; Misha V. Patel; Santiago Lozano-Calderon

Poster No. 1964

**Evaluating The Association Between The Child Opportunity Index (coi) 2.0 And Insurance Type On Access To Pediatric Acl Reconstruction Care From Socioeconomically Distressed Communities**

Anisha Duvvi; Leila Mehraban Alvandi; Edina Gjonbalaj; Zachariah Samuel; Jacob Schulz; Mauricio Drummond; Eric Fornari

Poster No. 1965

**Underrepresentation Of Non-white Participants In The American Academy Of Orthopaedic Surgeons Guidelines For Symptomatic Spinal Compression Fractures**

Jarod Olson; Omar Tarawneh; Jonathan Dalton; Rajkishen Narayanan; Olivia Opara; Nicholas Pohl; Zuhair Al-Bharani; June Hoang; Chloe Herczeg; Robert J. Oris; Jose Canseco; Alan Hilibrand; Alexander Vaccaro; Gregory Schroeder; Christopher Kepler

Poster No. 1966

**Wheelchair Dependent Ankle Fracture Patients Are Less Likely To Undergo Surgical Management And Face Increased Postoperative Complications**

Lucas Y. Kim; Meera Dhodapkar; Jonathan N. Grauer

Poster No. 1967

**Withdrawn**

Poster No. 1968

**Race Leads To Inequities In The Rate Of Complications And Reoperations In Primary But Not Revision Total Knee Arthroplasty**



## LIST OF POSTERS

---

Jeffrey W. Kwong; William J. Rubenstein; Hunter S. Warwick; Nicole Newman-Hung; Matthew Callahan; Benjamin SBlack; Dennis Black; Erik N. Hansen

Poster No. 1969

**Low Income, Female Sex, And Poor Mental Or Physical Health Are Risk Factors For Diminished Access To Care Among Patients With Meniscus Tears**

Drew W. Barron; Vikram S. Gill; Sayi P. Boddu; Nathan C. Beckett; Sailesh V. Tummala; Anikar Chhabra

Poster No. 1970

**Risk Factors, Management, And Outcomes For American Indian And Alaska Native Patients Requiring Hip Fracture Surgery**

Emma D. Grellinger; Alexandra So; Derek Ward; Stephanie Wong



## LIST OF POSTERS

### Monday, February 10, 2025

12:00 AM - 9:00 AM

Room #: North Hall A-C

#### PS2-160 Clinical Research - Observational Studies

Poster No. 1971

##### **Impact Of Social Deprivation On Missed Appointments In Orthopaedic Trauma: A Study On Upper Extremity Injuries**

Zynab Adewusi; Marcello Tosso; Jessica Liu; Van Boxtel Matthew; Alexander Graf

Poster No. 1972

##### **Impact Of Playing Surface On Risk For Patellar And Quadriceps Tears In The National Football League**

Corder E. Lehenbauer; John R. Baumann; Ashwin R. Garlapaty; Steven F. DeFroda; James L. Cook

Poster No. 1973

##### **Categorizing Extremely Positive Five-Star Online Reviews For Orthopaedic Foot And Ankle Surgeons: A Retrospective Study**

Albert Anastasio; Anthony Baumann; Omkar Anaspure; Lulla Kiwinda; Lindsey Ruderman; Kyle Hitchman; Samuel Adams

Poster No. 1974

##### **Registry-based Evidence Supports The Performance And Safety Of PEEK Interphalangeal Devices To Correct Toe Deformities**

Madilyn Riegel; Jillian Mohn; Willy Grasset; Hallie Murray

Poster No. 1975

##### **Can Pre-visit Education On The Purpose Of Bone Health Screenings Improve Visit Adherence?**

Maria Hinkamp; Mysim Lehmidi; David Freeze; Andrea Evenski; Kylee Rucinski

Poster No. 1976

##### **Timed Up And Go, Fall Risk And Foot Deformities In Charcot-Marie-Tooth Patients: A Retrospective Review**

Bopha Chrea; Lauren N. Crowe; Natalie Glass; Ryan Jasper; Mary Shepherd; Kailee Ward; Michael E. Shy; Jason Wilken

Poster No. 1977

##### **Kidney Function Does Not Modify The Association Between Bone Modeling-based Formation ("Minimodeling") And Bone Turnover In The Proximal Femur Of Patients With Hip Fracture**



## LIST OF POSTERS

Jan M. Hughes-Austin; Lauren Claravall; Ronit Katz; Deborah M. Kado; Alexandra K. Schwartz; William T. Kent; Paul J. Girard; Renata C. Pereira; Isidro B. Salusky; Joachim H. Ix

Poster No. 1978

**Using An Instrumented Insole To Detect Changes In Achilles Tendon Loading Between Pregnant Women In Their First Trimester And Pregnant Women In Their Third Trimester**

Afua Nkansah-Andoh; Michelle Meyers; Devyn Russo; Ke Song; Casey Humbyrd; Josh Baxter

Poster No. 1979

**Outcomes Of Non-operative Management For Stable Jefferson And Jefferson-variant Atlas Fractures**

Michael Shannon; Rahul Ramanathan; Christopher Gonzalez; Christopher Como; Anthony Oyekan; Yunting Tang; Stephen Canton; Jeremy Shaw; Joon Lee; Amir Abtahi; Michael Spitnale

Poster No. 1980

**Differential Effects Of Hyaluronic Acid And PRP Injections With And Without Amniotic Fluid Products**

Kevin R. Stone; Miya Liku; Simaron Dhillon; Mani Vessal

Poster No. 1981

**Is Ankle Foot Orthosis Use Associated With Greater Impairment Of Ankle Dorsiflexion And Plantarflexion Strength In Charcot-Marie-Tooth Patients?**

Bopha Chrea; Lauren N. Crowe; Natalie Glass; Don D. Anderson; Michael E. Shy; Jason Wilken

Poster No. 1982

**Headed Screws Support Positive Clinical And Radiographic Outcomes For Patients Presenting With Comorbidities And Risk Factors**

Madilyn Riegel; Jillian Mohn; Paul DeFrino; Hallie Murray

Poster No. 1983

**Performance Of Modern Uncemented Stems At 7 Years After Surgery: Results From A Company-sponsored Multi-center Registry**

David W. Fawley; Sean Croker; Rodrigo Diaz

Poster No. 1984

**Prior Year Hospital Admission Predicts Thirty-Day Hospital Readmission After Spine Surgery**

Ryan T. Lin; Rahul Ramanathan; Christopher Gonzalez; Isaac Lee; Richard Wawrose; Yunting Tang; Anthony Oyekan; Jonathan F. Dalton; Audrey Y. Chang; Joon Lee; Jeremy D. Shaw

Poster No. 1985





## LIST OF POSTERS

**Microfragmented Adipose (MFXA) Injection Improves Clinical Outcomes In Mid-term Follow-up Of Patients With Early Knee Osteoarthritis**

Maria Kammire; Rob Turk; Mario Cuadra; Elaine Shing; Susan Odum; Sarah Romereim; Bailey Fearing; Rachel Seymour; Claude Moorman

Poster No. 1986

**Perioperative Work In Hip Arthroscopy Is Undervalued By Relative Value Scale Update Committee Methodology**

Clay A. Rahaman; Shelby C. Hodges; Juan Gordillo; Mathew Hargreaves; Dev Dayal; Maxwell Harrell; Thomas Evely; Eugene W. Brabston; Amit M. Momaya; Aaron Casp

Poster No. 1987

**Mid-term Outcomes After Osteochondral Allograft Transplants In The Knee Using High-chondrocyte-  
viability-grafts**

James L. Cook; Kylee Rucinski; Emily Leary; Jinpu Li; Cory Crecelius; Clayton W. Nuelle; James P. Stannard

Poster No. 1988

**Complications After Anterior Lumbar Interbody Fusion**

C. James Kim; Rahul Ramanathan; Christopher Gonzalez; Christopher Como; Jeremy Shaw; Brian Zuckerbraun; Joon Lee

Poster No. 1989

**Decoding Thumb Mobility: Radiographic Insights And Zig-zag Deformity Prediction In Carpometacarpal Osteoarthritis**

Nirav Mungalpara; Mariam Banoub; Daniel McBride; Apurva Choubey; Brett Drake; Alfonso Mejia; Mark Gonzalez

Poster No. 1990

**Characteristics Of Quantification Of Physical Activity Intensity With Wearable Sensor Device In University School Students: A Comparison Against Global Physical Activity Questionnaire (GPAQ)**

Natsuki Yoshida; Satoshi Yamakawa; Teruki Yokoyama; Takashi Kanamoto; Ken Nakata

Poster No. 1991

**The Use Of Nail-plate Combination Versus Isolated Medullary Nail For Treatment Of Geriatric Distal Femur Fractures: Early Outcomes Comparison**

Cole T. Payne; Christian G. Falgons; Douglas R. Haase; Timothy S. Achor; John W. Munz; Jonathan eastman; Stephen J. Warner

Poster No. 1992



## LIST OF POSTERS

---

**Survivorship Of Primary Total Hips Using A Third Generation Highly Cross-linked Polyethylene Liner With 32 Or 36mm Heads: Results From A Company-sponsored Registry**

David W. Fawley; Sean Croker; Rodrigo Diaz

Poster No. 1993

**Enhanced Classification Of Clinical And Image-based Risk Factors Of Protrusio Acetabuli In Periacetabular Metastases: Mechanically-based Lessons From Translational Research**

Will Jiang; Donghao Gan; Gongwei Wang; Dieter Lindskog; Gary Friedlaender; Francis Lee

Poster No. 1994

**Radiation Exposure Due To Ct Navigated Technique In Adolescent Idiopathic Scoliosis**

Kazuta Yamashita; Keisuke Nishidono; Saori Soeda; Masatoshi Morimoto; Fumitake Tezuka; Koichi Sairyō

Poster No. 1995

**Mid- To Long-term Outcomes Of The Star Total Ankle Replacement**

Albert T. Anastasio; Alexandra Hunter Aitchison; Kevin Wu; Emily Poehlein; Cynthia Green; Samuel B. Adams; James K. DeOrio; Mark E. Easley; James A. Nunley



## LIST OF POSTERS

---

**Monday, February 10, 2025**

10:00 AM - 7:00 PM

Room #: North Hall A-C

**PS2-161 Clinical Research - Omics, Biomarkers and Genetics**

Poster No. 1996

**Comparison Between Synovial Fluid Biomarkers of Early And Advanced Stages In Knee Osteoarthritis**

Daisuke Kiyama

Poster No. 1997

**Oxidative Stress And Inflammation In Posterior Cruciate Ligaments Of Bariatric Arthroplasty Patients**

Cale Dobson; Mitchell Coleman; Karen Cyndari; Jacob M. Elkins



## LIST OF POSTERS

---

**Monday, February 10, 2025**

10:00 AM - 7:00 PM

Room #: North Hall A-C

**PS2-162      Clinical Research - Randomized Studies**

Poster No. 1998

**Efficacy Of A Needle-Shaped Biphasic Calcium Phosphate Ceramic Versus Autograft In Instrumented Posterolateral Spinal Fusion: A Multicenter Randomized Controlled Noninferiority Trial With Intra-Patient Design**

Thomas Spoonmore

Poster No. 1999

**Effects Of Pulsed Electromagnetic Fields (PEMF) On Knee Osteoarthritis: A Double-blind, Placebo-controlled, Randomised Clinical Trial**

Ssu Chi CHEN; Christine Hoi Yan FU; Jonathan Patrick NG; Michael Tim Yun ONG; Patrick Shu Hang YUNG; Pauline Po Yee Lui



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-163 Clinical Research - Systematic Review/Meta-analyses**

Poster No. 2000

#### **How Do P Values In Abstracts Compare To Those In Full Texts Of Randomized Controlled Trials And Clinical Trials On Mesenchymal Stromal Cells For Knee Osteoarthritis Treatment?**

Nesa Milan; Katherine Woolley; Zubin Master; Brian Feeley

Poster No. 2001

#### **Innovative Approaches To Diagnosing And Treating Metallosis In Knee Arthroplasty**

Yvon Bogdonoff; Farid Amirouche

Poster No. 2002

#### **Quality Assessment Of Studies Examining Computer-Assisted Navigation In Knee Arthroplasty**

Vincent Lee

Poster No. 2002A

#### **Systematic Review And Meta-analysis Of Hypoalbuminemia And Total Knee, Hip, Shoulder, And Joint Arthroplasty**

Shivasuryan Vummidi; Eric Tischler; Sung Huang Laurent Tsai; Jake R. McDermott; Chun Ru Lin; Joshua Harounian; Jonathan M. Gross; Nishant Suneja

Poster No. 2003

#### **Bone Health And Fracture Risk For Aging Transgender Patient: A Scoping Review**

Alicia Jacobson; Caellagh Catley; Sophia Mavrommatis; Mark MacEachern; Jaimo Ahn

Poster No. 2004

#### **Insurance Payor Status And Outcomes In Foot And Ankle Surgery**

Emily Luo; Dana Rowe; Kevin Wu; Mikhail Bethell; Kwabena Adu-Kwarteng; Albert Anastasio; Samuel Adams

Poster No. 2005

**Withdrawn**

Poster No. 2006



## LIST OF POSTERS

### **Machine Learning Research Methods To Predict Postoperative Pain And Opioid Use: A Systematic Review**

Dale J. Langford; Julia F. Reichel; Haoyan Zhong; Benjamin H. Basseri; Marc P. Koch; Ramana Kolady; Jiabin Liu; Alexandra Sideris; Robert H. Dworkin; Jashvant Poeran; Christopher L. Wu

Poster No. 2007

### **Comparative Outcomes Of Kyphoplasty For Osteoporotic Compression Fractures: A Systematic Review And Meta-analysis Of Thoracic Versus Lumbar Spine**

Michael Kann; Rahul Ramanathan; Christopher Gonzalez; Christian Cisneros; Trudy Zou; Christopher Como; Joon Lee; Vivek Sharma

Poster No. 2008

### **The Efficacy And Safety Of Prophylactic Treatment Methods For Cutibacterium Acnes Infection In The Shoulder: A Systematic Review Of Level Of Evidence I Randomized Controlled Trials**

Colton Mowers; William Harkin; Tyler C. Williams; Kyleen Jan; Gregory P. Nicholson; Grant E. Garrigues

Poster No. 2009

### **The Variable Definitions Of Return To Sport In Foot And Ankle Surgery Literature**

Kush Savsani; Konstantinos Oikonomou; Luke A. Sandoval; Phillip B. Wyatt; John Cyrus; Brady Ernst; Conor O'Neil; Seth Schweitzer; Alexander Vap

Poster No. 2010

### **Metabolic And Non-Pharmacological Modalities Involved In The Growth And Viability Of Peripheral Nerves Following Surgical Repair: A Systematic Review**

Robert TT Shepard; Aris Paschalidis; Daniel Chen; Neill Li

Poster No. 2011

### **Patients Undergoing Minimally Invasive Periacetabular Osteotomy Demonstrate Improved Outcomes: A Systematic Review**

James S. MacLeod; Michael Lee; James Fox; Kevin Girardi; Serkan Surucu; Stephen Gillinov; Nancy Park; Ronak Mahatme; Scott Fong; Jay Moran; Soheil Sabzevari; Andrew Jimenez

Poster No. 2012

### **Perioperative Complications In Patients With Non-tobacco Based Nicotine Use After Lower Extremity Trauma**

Leonide Toussaint

Poster No. 2013



## LIST OF POSTERS

**Do The Lateralization And Distalization Shoulder Angles Predict The Clinical Outcomes In Reverse Shoulder Arthroplasty? A Systematic Review And Meta-analysis**

Serkan Surucu; Ahmet Okutan; Michael Lee; James MacLeod; Jacob Kodra; Necati Erasvar; Scott Fong; Alexander Graf; Andrew Jimenez

Poster No. 2014

**Revisiting The Ota-ofc: A Systematic Review Of 10 Years Of Open Fracture Classification Studies**

Babapelumi Adejuyigbe; Mohini Gharpure; Ria Tilve; Shravya Kakulamarr; Sophia Wang; Kallini Jenniifer; Rachel Seymour; Orthopedic Trauma Classification Committee Ashley Levack MD; Stephen Shymon MD; Mo Refaat MD; Meir Marmor

Poster No. 2015

**Deep Learning Performance In Image-based Anatomical Characteristic For Rotator Cuff Pathology: A Systematic Review And Meta-analysis**

Qi Luo; Li Zhou; Rong Zhao; Yuan Chai; Jinjin Ma

Poster No. 2016

**Magnetic Resonance Imaging Radiomics And Machine Learning For Predicting Knee Osteoarthritis: A Systematic Review And Meta-analysis**

Taylor Barg; Charles Nolte; Kaitie Whitney; Soha Khadem; Ho Charles; Michael David; Jason Dragoo



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-164      Hand and Wrist - Biomechanics**

Poster No. 2017

#### **Do Osteophytes Reduce Thumb Carpometacarpal Range Of Motion? A Preliminary In Vitro Study**

Josephine Kalshoven; Rohit Badida; Amy Morton; Janine Molino; J J Trey Crisco

Poster No. 2018

#### **Limb Dominance And Proximal-to-Distal Segmentalization For Cerebral Palsy Patients And Healthy Controls**

Abhiram Dawar; Stephen MacNeille; Amog Mysore; Gnaneswar Chundi; Maansi Chalasani; Jean-Francois Daneault; Alice Chu

Poster No. 2019

#### **Comparative Analysis Of Upper Joint Mimicry For Cerebral Palsy Patients And Healthy Controls**

Amog Mysore; Stephen MacNeille; Maansi Chalasani; Abhiram Dawar; Jean-Francois Daneault; Alice Chu

Poster No. 2020

#### **Midcarpal Joint Behavior Following Radiocarpal Fusion And Variable Distal Scaphoid Excisions: A Finite Element Investigation**

Wedam Nyaaba; Farid Amirouche; Mark Gonzalez

Poster No. 2021

#### **Convergent K-wire Configurations For Increased Stability In Scaphoid Nonunion Fixation**

Erika Hookasian; Frances E. Sharpe; Sumant S. Iyer; Jenna Wahbeh; Saeed Mohammad; Milan Stevanovic; Sang-Hyun Park; Sophia Sangiorgio; Edward Ebramzadeh

Poster No. 2022

#### **Biomechanics Of The Yucatan Minipig Wrist After Carpal Bone Resection**

Quianna Vaughan; Rohit Badida; Amy Morton; Douglas Moore; J J Trey Crisco

Poster No. 2023

#### **Viscoelastic Properties Of The Scapholunate Interosseous Ligament: Experimental Data**

Natalia D. McIver; Christina Salas; Mahmoud Reda Taha

Poster No. 2024





## LIST OF POSTERS

---

**Investigating Stress-pain Effects Of Gripping At The Bottom Of Thumb During Meniscus Removal Surgery**

Cindy Nahhas; Eli Raeker-Jordan; Nirav Mungalpara; Hristo Piponov; Alfonso Mejia; Farid Amirouche

Poster No. 2025

**Finite Element Analysis Of Scapholunate Joint Behavior: Implications For Postoperative Stability And Load Distribution**

Vennela Challagondla; Wedam Nyaaba; Mark Gonzalez; Farid Amirouche

Poster No. 2026

**Simulated Transverse Carpal Ligament Movement With Trapeziometacarpal Ligamentous Laxity**

David Jordan; John Elfar; Kent Kwoh; Zong-Ming Li



## LIST OF POSTERS

---

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-165      Hand and Wrist - Imaging**

Poster No. 2027

#### **Combining $\mu$ Ct, Vascular Injection, And Dicet Imaging Of The Hand And Wrist Anatomy**

Madison Hillis; Zong-Ming Li; Haley O'Brien; Paul Gignac

Poster No. 2028

#### **3d Motion Analysis Of The Total Wrist Prosthesis Using Fresh Frozen Cadavers**

Yuichiro Matsui; Mitsutoshi Ota; Takeshi Endo; Daisuke Momma; Norimasa Iwasaki

Poster No. 2029

#### **Enhancing Distal Radial Fracture Management: A Deep Learning Approach To Classify Operative Needs Using Low-quality Radiographs**

Jacob P. Scioscia; Benjamin Fiedler; Srihar Chilukuri; Jeffrey Hauck; Lorenzo Deveza

Poster No. 2030

#### **Distal Radius DXA And Second Metacarpal Dimensions Predict Carpal Bone Morphology**

Mark A. Miller; Christopher N. Benoit; Megan E. Oest; Jodi N. Dowthwaite; Frederick W. Werner; Kevin M. Albanese



## LIST OF POSTERS

---

**Monday, February 10, 2025**

10:00 AM - 7:00 PM

Room #: North Hall A-C

**PS2-166      Hand and Wrist - Osteoarthritis**

Poster No. 2031

**Withdrawn**

Poster No. 2032

**Beak Ligament Microarchitecture Deteriorates At Metacarpal Entesis In Female Osteoarthritic Trapeziometacarpal Joints**

Lizzie Walker; Daniel Gordon; Joshua Kelley; Meenakshi Mukherji; Renlong Zhang; Dane Daley; Zhaoxu Meng; Vincent Pellegrini; Tong Ye; Hai Yao; Yongren Wu



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-167      Hand and Wrist - Surgical and Therapeutic Innovation**

Poster No. 2033

##### **Can Age And Weight Predict Radial Carpal Bone Size In A Porcine Forelimb Model?**

Quianna Vaughan; Amy Morton; Douglas Moore; J J Trey Crisco

Poster No. 2034

##### **Validation Of A Finite Element Model For 4-point Bending Of Bone Plates Per Astm F382**

Jigar Vasava; Marcus Mohr; Elena Zale; Ravi Ananthan

Poster No. 2035

##### **Decreasing Trend In Medicare Physician Reimbursements For Surgical Management Of Upper Extremity Nerve Conditions From 2002 To 2023**

Paul G. Mastrokostas; Aaron B. Lavi; Leonidas E. Mastrokostas; Scott Liu; Katherine M. Connors; Jennifer Hashem

Poster No. 2036

##### **Gpt-4 As A Source Of Patient Information For Carpal Tunnel Surgery: A Comparative Analysis Against Google Web Search**

Paul G. Mastrokostas; Aaron B. Lavi; Bruce B. Zhang; Leonidas E. Mastrokostas; Scott Liu; Katherine M. Connors; Jennifer Hashem

Poster No. 2037

##### **Surgical Treatments For Scapholunate Ligament Injuries And Development Of Arthritis In The Wrist: A Systematic Review**

Eiden Lami; Jack Kramer; Farid Amirouche

Poster No. 2038

##### **Alternative Fixation Methods In The Treatment Of Bennett Fracture**

Seth A. Ahlquist; Erika Hookasian; Brahman Sivakumar; David Graham; Neil F. Jones; Sophia Sangiorgio; Edward Ebramzadeh

Poster No. 2039

##### **Evaluating The Prevalence And Outcomes Of Partial And Complete Flexor Tendon Excision During Trigger Finger Release**

As of 2.5.2025



# 2025 ANNUAL MEETING

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February 7 – 11, 2025 | Phoenix, Arizona



## LIST OF POSTERS

---

Joydeep Baidya; Olivia Opara; Nicholas Pohl; Harrison Patrizio; Sebastian Frasc; Abbey Glover; Jarod Olson; Daniel Fletcher



## LIST OF POSTERS

---

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-168      Hand and Wrist - Tendon, Ligament and Neuromuscular Disorders**

Poster No. 2040

#### **Atypical Causes And Mimickers Of Digital Flexor Tenosynovitis: A Systematic Review And Summary Of Case Studies**

Donald Mascio; James Oosten; Alexandra Benoit; Seth Roge; Mark Gonzalez; Alfonso Mejia

Poster No. 2041

#### **Examining The Interaction Between Bariatric Surgery And Compressive Neuropathies: Implications For Surgical Outcomes And Care Strategies**

John Alvarez; Vennela Challagondla; Nirav Mungalpara; Seth Roge; Apurva Choubey; Brett Drake; Alfonso Mejia; Mark Gonzalez

Poster No. 2042

#### **Progressive Stiffness In Trigger Finger Occurs From Tenosynovial Hypertrophy, Hypoxia And Senescence**

Rowena McBeath; Sebastian Arango; Jacob Zeitlin; Susan Parks; Mitchell Maltenfort; A. Lee Osterman; Irving Shapiro

Poster No. 2043

**Withdrawn**



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-169      Shoulder and Elbow - Arthroplasty**

Poster No. 2044

##### **Ceramic Versus Metal Shoulder Hemiarthroplasty: An In-vitro Wear Simulator Study**

Ulrich Hansen; Hazimah Mahmud; Anthony Bull; Roger Emery; Andrew Amis; Christian Heinrichs; Peter Reilly

Poster No. 2045

##### **Risk Factors And Shoulder Arthroplasty Types Impacting Postoperative Venous Thromboembolism Rates: A National Database Study**

Lina Elias; Anup Shah; Joshua Hustedt; Marisol Allen; Evan Lederman

Poster No. 2046

##### **Comparing Utilization And Clinical Outcomes For A Reverse Total Shoulder Arthroplasty System With Different Baseplate Designs**

Hyeongmin Kim; Josie Elwell; Sean G. Grey; Thomas W. Wright; Joseph D. Zuckerman; Pierre-Henri Flurin; Christopher P. Roche

Poster No. 2047

##### **Biomechanical Evaluation Of RSA Baseplate Designs: Implant Stability With And Without Bone Loss**

Miguel A. Diaz; Mitch Daniel; Pablo Sanchez-Urgelles; Mark A. Frankle

Poster No. 2048

##### **Impact Of Glp-1 Receptor Agonists On Postoperative Outcomes Following Total Shoulder Arthroplasty**

Ankit Choudhury; Matthew Van Boxtel; Jessica Hanley

Poster No. 2049

##### **Subscapularis Repair And Posterosuperior Cuff Tear Severity Affect Impingement In Reverse Shoulder Arthroplasty**

Donghwan Lee; Joo Han Oh; Jungsung Kim; Choongsoo Shin

Poster No. 2050

##### **Effect Of Radial Mismatch On Glenohumeral Mechanics Of Total Shoulder Arthroplasty: A Computational Study**



## LIST OF POSTERS

Jonathan D. Glenday; Lawrence V. Gulotta; Michael C. Fu; David M. Dines; Samuel A. Taylor; Andreas Kontaxis

Poster No. 2051

**Optimizing Stemless Humeral Anchors: Asymmetrical Designs For Minimizing Cortical Bone Impingement While Maximizing Cancellous Bone Purchase**

Yang Son; Christine Mueri; Kyle Snethen; Lori Bowman; Raymond Parisi; Thomas Duquin

Poster No. 2052

**Sensitivity Analysis Quantifying The Impact Of Image Processing Parameters On Radiomic Feature Extraction Across Different Ct Image Acquisition Parameters**

Hamidreza Rajabzadeh-Oghaz; Josie Elwell; vikas kumar; Christopher Roche

Poster No. 2053

**Fatigue Performance Of Acromion And Scapular Spine Fracture Plate System Under Cycled Bend Testing Using A Gap Model**

Nicole Mohajer; Zachary Bryan; Roger Arnold; Peter Cole; Jonathan Levy; Michael McKee; Howard Routman; Joaquin Sanchez-Sotelo; Matthew Hamilton

Poster No. 2054

**Shoulder Arthroplasty In The Setting Of Anterior Glenoid Wear**

Casey M. Beleckas; Albert D. Mousad; Daniel F. Schodlbauer; Jonathan C. Levy

Poster No. 2055

**Trends In Total Elbow Arthroplasty**

Katharine K J Glaser; Christian Victoria; Rafa Rahman; Ameya V. Save

Poster No. 2056

**Evaluating Implant Positioning Accuracy In Reverse Shoulder Arthroplasty Using 3d Templating And Dynamic Biplane Video Radiography**

Alonso Figueroa; Tomasz Bugajski; James M. Gregory; Payam Zandiyeh

Poster No. 2057

**Reverse Shoulder Arthroplasty In Younger Patients Is Associated With Increased Risk Of Prosthetic Infection, Recurrent Dislocation, Recurrent Shoulder Instability And Surgical Revision.**

Argen Omurzakov; Arsen M. Omurzakov; Aakash Shah; David C. Kaelber; John M. Apostolakos

Poster No. 2058





## LIST OF POSTERS

**Glp-1 Receptor Agonist Use Is Not Associated With An Increased Risk Of Complications After Anatomic Total Shoulder Arthroplasty.**

Arsen M. Omurzakov; Argen Omurzakov; Aakash Shah; David C. Kaelber; John M. Apostolakos

Poster No. 2059

**Barriers To Healthcare Access And Utilization In Patients With Shoulder Osteoarthritis**

Justin L. Knapp; Vikram S. Gill; Sayi P. Boddu; Drew W. Barron; Landon Ebbert; Joshua Ebbert; Ammon Driggs; Jack Haglin; John Tokish

Poster No. 2060

**Biomechanical Comparison Of Glenoid Implant Designs For TSA Using Finite Element Modeling**

Cadence Lee; Arnab Ghosh; Jason Koh; Lewis Shi; Farid Amirouche

Poster No. 2061

**Anatomic Versus Reverse Total Shoulder Arthroplasty: A Comparison In Patients With A Single Assessment Numeric Evaluation Of 95 And Over**

Casey M. Beleckas; Albert D. Mousad; Daniel F. Schodlbauer; Jonathan C. Levy

Poster No. 2062

**Rifampin In Polymethylmethacrylate Cement Provides Superior And Sustained Suppression Of Coagulase Negative Staph. And C. Acnes Over 60 Days Compared To Vancomycin: An In Vitro Study**

Michael Carinha; Umar Masood; Matthew DiPaola; John Crane

Poster No. 2063

**Anatomic And Reverse Total Shoulder Arthroplasty For Osteoarthritis: Outcomes In Patients 80 Years Old And Older**

Albert D. Mousad; Casey M. Beleckas; Benjamin Lack; Daniel F. Schodlbauer; Jonathan C. Levy

Poster No. 2064

**Dual Antibiotic Loading In PMMA Cement Extends Efficacy Of Vancomycin And Doxycycline For 60 Days Against Coagulase Negative Staph. And C. Acnes: An In Vitro Study.**

Umar Masood; Michael Carinha; John Crane; Matthew DiPaola

Poster No. 2065

**Distinguishing High-functioning From Low-functioning Reverse Total Shoulder Arthroplasty Patients: A Comparative Analysis Of Shoulder Kinematics And Emg During Coronal Plane Abduction**

Divya Sharma; Christopher Knowlton; Gregory P. Nicholson; Grant Garrigues; Jonathan Gustafson

Poster No. 2066



## LIST OF POSTERS

---

**Rotator Cuff Repair In Patients Older Than Sixty Is Associated With Low Rates Of Revision To Reverse Total Shoulder Arthroplasty**

Arjun Vohra; Romir P. Parmar; Clayton Hui; Joshua Hustedt; Evan Lederman; Michael McKee; Anup Shah



## LIST OF POSTERS

---

**Monday, February 10, 2025**

10:00 AM - 7:00 PM

Room #: North Hall A-C

**PS2-170      Shoulder and Elbow - Growth, Development and Aging**

Poster No. 2067

**Divergent Bmi Trends In Proximal Humerus Fractures: An Age And Sex Stratified Study**

Lance L. Lamore; Shelly Bogue; Brian Schnierderman; Joseph Elsisy

Poster No. 2068

**Evaluation Of The Antioxidant Effect Of ARB <losartan> On Human Rotator Cuff Cells**

Shunsaku Takigami; Yutaka Mifune; Atsuyuki Inui; Kohei Yamaura; Tatsuo Kato; Takahiro Furukawa; Masaya Kusunose; Shuya Tanaka; Yutaka Ehara; Shin Osawa; Daiji Nakabayashi; Ryosuke Kuroda



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-171      Shoulder and Elbow - Injury and Healing**

Poster No. 2069

#### **The Regulatory Role Of Paraventricular Nucleus Of The Hypothalamus Oxt Neurons In The Repair Of Rotator Cuff Injury**

liyang wan; hongbin lu

Poster No. 2070

#### **Tear Characteristics Influence Tendon Retraction And Postoperative Outcomes Following Arthroscopic Repair Of Acute Traumatic Rotator Cuff Tears**

Amin karimi; Ryan Lin; Soheil Sabzevari; Sophia McMahan; Fritz Steuer; Michael Fox; Volker Musahl; Bryson P. Lesniak; Albert Lin

Poster No. 2071

#### **Hardware Development And Verification Of Cufflink**

Connor Luck; Jennifer Lambiase; Jennifer Oakley; Rachel Roos; Adam Popchak; Ashley Disantis; Michael McClincy; Kevin Bell

Poster No. 2072

#### **Interaction Cufflink For Post-operative Shoulder Telerehabilitation**

Andi Saptono; Made D. Yoga; Vayu Putraadinatha; Dharma Parmanto; Bambang Parmanto; Kevin M. Bell; Adam J. Popchak; Rachel Roos; Connor Luck; Michael McClincy; Ashley E. Disantis; Jennifer Oakley; Jennifer Lambiase; Stephany Lang; Jim Grant; Erica Tatko; Leslie George; Simran Kulkarni

Poster No. 2073

#### **A Low-cost Functional Assessment For Acute Rotator Cuff Repair In Rats**

David Pellei; Meng Feng; Vyshinavi Tallapaneni; Hun Jin Jeong; Elen Zhu; Emma Wang; Rachel Park; Christopher Ricupero; Chang Lee

Poster No. 2074

#### **Return To Sports Testing Increases Postoperative Patient Reported Outcomes After Arthroscopic Anterior Shoulder**

Sophia McMahan; Ryan Lin; Linda Park; Jenna Dvorsky; Fritz Steuer; Shaquille Charles; Albert Lin

Poster No. 2075



## LIST OF POSTERS

### **Covid-19 And The Link With Adhesive Capsulitis**

Sundeep Chahal; Zara Rahemi; Sarah Floyd; Satishkumar Ranganathan Ganakammal; Congyue Annie Peng; Sara Sarasua

Poster No. 2076

### **Singlecell Transcriptome Reveals The Molecular Dynamics Of Scar Repair After Human Rotator Cuff Injury**

Hongbin Lu; Yiming Qin

Poster No. 2077

### **A Retrospective Review Of Olecranon Fracture Repair: Comparative Analysis Of Four Operative Techniques**

Joydeep Baidya; Nicholas Pohl; Meghan Shilken; Steven Yi; Stacey Mavridis; Rachel Huang; Daniel Fletcher

Poster No. 2078

### **Muscle Fatty Infiltration: A Hidden Cause Of Pain After Rotator Cuff Tears**

Aboubacar Wague; Zachary Liu; Sankalp Sharma; Leila Leila Hennessey; Alex Youn; Justin Lau; Nesa Milan; Jarret Weinrich; Brian Feeley; Xuhui Liu

Poster No. 2079

### **Characterization Of Macrophage-related Gene Expression And Folate Receptor Activity In A Murine Subacromial Impingement Model**

Claire D. Eliasberg; Camila B. Carballo; Matthew R. Covello; Vincent Yao; Alexander Piacentini; Yuki Suzuki; Yuki Okazaki; Edward Bowen; James M. Kelly; Scott A. Rodeo



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-172      Shoulder and Elbow - Structure, Function and Mechanics**

Poster No. 2080

##### **Assessing The Accuracy Of Different Tasks As Measures Of Hand Dominance: A Motion Analysis Study**

Maansi Chalasani; Stephen MacNeille; Amog Mysore; Abhiram Dawar; Jean-Francois Daneault; Alice Chu

Poster No. 2081

##### **Addition Of A Remplissage To Arthroscopic Bankart Repair Has A Protective Effect For Recurrent Instability For Shoulders With Critical Humeral Bone Loss**

Fritz Steuer; Stephen Marcaccio; Ting Cong; Shaquille Charles; Rajiv Reddy; Sophia McMahon; Albert Lin

Poster No. 2082

##### **Cost Effectiveness Of Telemedicine Monitored Physical Therapy: The Shoulder Strengthening And Stabilization Systems After Rotator Cuff Repair**

Fritz Steuer; Sophia McMahon; Jonathan D. Hughes; Bryson Lesniak; Adam J. Popchak; Albert Lin

Poster No. 2083

##### **Assessment Of Upper Extremity Symmetry Differences In Movement Patterns Seen During Fine Motor Tasks: A Motion Analysis Study**

Maansi Chalasani; Stephen MacNeille; Amog Mysore; Abhiram Dawar; Jean-Francois Daneault; Alice Chu

Poster No. 2084

##### **Effects Of Releases Of The Rotator Cuff Muscles On Principal Strains And Their Directions**

Joshua S. Frantz; Mark Carl Miller; Patrick Smolinski; Gabriel Stay; Bethany Ricci; Christopher Schmidt; Justin T. Badon

Poster No. 2085

##### **The Effective Moment Arms Of The Anterior And Posterior Supraspinatus**

Joshua Frantz; Christopher Schmidt; Mark Carl Miller; Patrick Smolinski; Gabriel Stay; Bethany Ricci; Justin Badon

Poster No. 2086

##### **Optimizing Rotator Cuff Repairs: The Impact Of Combined Surgical Techniques On Muscle Force**

Nirav Mungalpara; Sunjung Kim; Kevin Chen; Ashish Shakya; Cody Lee; Hayden Baker; Aravind Athiviraham; Nicholas Maassen; Jason Koh; Bassem Elhassan; Farid Amirouche



## LIST OF POSTERS

---

Poster No. 2087

**Elbow Extension Range Of Motion Reporting In The Available Literature For Olecranon Fractures: A Systematic Review**

Joydeep Baidya; Nicholas Pohl; Ameera Syed; Emilie Sawicki; Robert Oris; Daniel Fletcher



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-173      Shoulder and Elbow - Surgical and Non-Surgical Interventions**

Poster No. 2088

##### **Persistent Subacromial Bursal Effusion Leads To Inferior Patient-reported Outcome In Individuals With Symptomatic Isolated Supraspinatus Tendon Tears**

Jumpei Inoue; Luke T. Mattar; Efstathios Konstantinou; Adam J. Popchak; Volker Musahl; James J. Irrgang; Richard E. Debski

Poster No. 2089

##### **Glenohumeral Anterior-Posterior Translation Range Is Not Associated With Rotator Cuff Muscle Strength Ratio In Individuals With Symptomatic Isolated Supraspinatus Tears Prior To Exercise Therapy**

Jingxuan Wang; Luke T. Mattar; Ilyda Canturk; Adam J. Popchak; Jumpei Inoue; William J. Anderst; Volker Musahl; James J. Irrgang; Richard E. Debski

Poster No. 2090

##### **Dermal Augmentation Restores Glenohumeral Stability In A Comparative Time-zero Model Of Glenoid Bone Loss Repair**

Brittany Glaeser; Sarah Ingwer; Sam Akhavan; Oliver Hauck

Poster No. 2091

##### **Biomechanical Comparison Of Internal Brace Augmentation (IBA) For Ulnar Collateral Ligament (UCL) Repair At Different Flexion Angles: A Cadaveric Study**

Elizabeth B. Pace; Omar Rodriguez; Tara Nagle; Robb Colbrunn; Paul Saluan

Poster No. 2092

##### **Can The Student Become The Master? Comparing Accuracy And Precision Of Robotically-placed Pedicle Screws Between Resident And Attending**

Austin Kaidi; Benjamin N. Groisser; Ankush Thakur; Hirase Takashi; Gregory S. Kazarian; Howard J. Hillstrom; Akshitha Adhiyaman; Colson P. Zucker; Olivia C. Tracey; Jenna L. Wisch; Matthew E. Cunningham; Michael Timothy Hresko; Ram Haddas; John S. Blanco; Douglas N. Mintz; Ryan E. Breighner; Roger F. Widmann; Jessica H. Heyer

Poster No. 2093

##### **Risk Factors For Postoperative Shoulder Stiffness After Arthroscopic Rotator Cuff Repair**

As of 2.5.2025





## LIST OF POSTERS

Erik Haneberg; William Harkin; Harmanjeet Singh; Andrew Phillips; Zeeshan Khan; Isabel Reid; Gregory Nicholson; Brian Cole; Brian Forsythe; Garrigues Grant; Nikhil Verma; Adam B. Yanke

Poster No. 2094

**Comparison Of Biomechanical Properties Of Using One Versus Two Double-rows For The Bony Bankart Bridge In The Treatment Of Large Anterior Glenoid Defects**

Justin FM Hollenbeck; Ayham Jaber; Maximillian Hinz; Rio G. Castro; Christopher J. Hawryluk; Matthew T. Provencher; Peter J. Millett

Poster No. 2095

**Patients With Seizure Disorders Undergoing Surgery For Recurrent Anterior Shoulder Instability Demonstrate Variable Rates Of Recurrence - Postoperative Seizures Are The Most Common Cause Of Failure**

Scott Fong; Fabrizio Darby; seema patel; james fox; Michael Lee; Jay Moran; Stephen Gillinov; Mackenzie Norman; Justin Zhu; Ronak Mahatme; John M. Apostolakos; Andrew Jimenez

Poster No. 2096

**Biomechanical Analysis Evaluating An Augmentation Technique For Supraspinatus Double-row Repair With Additional Double-row Anterior Fixation: "The Double-double-row Repair"**

Justin FM Hollenbeck; Jordan E. Teel; Ajay C. Kanakamedala; Rio G. Castro; Natalie Cortes; Wyatt H. Buchalter; Marco Adriani; Phob Ganokroj; Peter J. Millett; Matthew T. Provencher

Poster No. 2097

**Natural Language Processing Of Shoulder Magnetic Resonance Imaging Scans Radiology Reports Can Predict Eventual Patient Treatment**

Timothy S. Keeley; Kian Niknam; Ryan T. Halvorson; Katharina Ziegeler; Sharmila Majumdar; Drew A. Lansdown



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-174      Skeletal Muscle - Diseases and Disorders**

Poster No. 2098

#### **Incidence, Outcomes And Opioid Use: Anterior Cervical Discectomy And Fusion In Ehlers-Danlos Syndrome**

Eden VanderHoek; Spencer Smith; Clifford Lin; Travis Philipp; Jung Yoo

Poster No. 2099

#### **Investigating A Patient's Becker's Muscular Dystrophy (BMD) Phenotype Through A CRISPR Generated Personalized Mouse Model**

Sankalp Sharma; Hiroyori Fusagawa; Sanvi Sharma; Gardner Rees; Aboubacar Wague; Alex Youn; Gabriel Franchet-Schaer; Ashley Fang; Yusef Samimi; Brian Feeley; Hubert Kim; Xuhui Liu

Poster No. 2100

#### **The Prevalence Of Work-related Musculoskeletal Disorders Among Orthopaedic Trainees And Current Ergonomic Practices- A Cross-sectional Study**

Victoria Byrne; Fergus J. McCabe; Orla Hennessy; Micheal Newell; John P. McCabe

Poster No. 2101

#### **Skeletal Muscle Pre-adipogenic Fap Subpopulation Increases With ALS Progression In Sod1<sup>G93a</sup> Transgenic Mice**

Cristhian F. Montenegro; Angelina Heminway; Justin Lau; Isha Pema; Nesa Milan; Aboubacar Wague; Brian Feeley; Xuhui Liu

Poster No. 2102

#### **Extending Survival And Preserving Motor Function In Sod1<sup>G93a</sup> Als Mice Through Blood Flow Restriction Therapy**

Aboubacar Wague; Leila Hennessy; Anusha Koshe; Gardner Rees; Nesa Milan; Jarret Weinrich; Brian Feeley; Xuhui Liu



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-175      Skeletal Muscle - Exercise and Rehabilitation**

Poster No. 2103

#### **Vibration Combined With $\beta$ -hydroxy- $\beta$ -methylbutyrate Treatment Suppress Neuromuscular Junction Degeneration In Sarcopenia**

Qianjin Wang; Wujian Lin; Can Cui; Ning Zhang; Ronald Man Yeung Wong; Wing Hoi Cheung

Poster No. 2104

#### **Withdrawn**

Poster No. 2105

#### **Validation Of Use Of Previously Collected Smartphone Health Data To Determine Current Performance Level For Use In Orthopaedic Trauma Surgery**

Ryan T. Halvorson; Joseph Tennyson; Mathias Sorenson; Meir Marmor

Poster No. 2106

#### **The Role Of Psychosocial Factors In Exercise Performance And Response In Individuals With Chronic Lumbar Spine Pain**

Ryan Lebens; Lara Havandijan; Lissa Taitano; Connor Richards; Kamshad Raiszadeh; Bahar Shahidi

Poster No. 2107

#### **Effect Of The 'Fifa 11+ Kids' Neuromuscular Training Program On Physical Performance In Preadolescent Female Soccer Players**

Alysa Birnbrich; Jordan Jackson; Haley Goble; Roxanne Miller; Jordan Ankersen; Bradley Lambert; Shari Liberman



## LIST OF POSTERS

---

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-176      Skeletal Muscle - Growth, Development and Aging**

Poster No. 2108

#### **Overexpression Of Erry In Skeletal Muscle Of Zmpste24<sup>-/-</sup> Mice Delays Muscle Aging Post-injury**

Ashley Groesbeck; Matthieu Huard; Ping Guo; Noah Knezic; Aiping Lu; Johnny Huard

Poster No. 2109

#### **Identification Of New Sarcopenia Biomarkers Through Big Data-based Transcriptome Analysis**

Jae Gyu Kim; Yeon-Hee Lee; Sang-Soo Lee

Poster No. 2110

#### **Induction Of The Integrated Stress Response On Aging Muscle Stem Cells Through Transcriptomics and Machine Learning Approach On Morphologies**

Samiha Mahin; Nivedita Suresh; Alex Brown; Brian Feeley; Xuhui Liu; Andrew Brack



## LIST OF POSTERS

---

### **Monday, February 10, 2025**

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-177      Skeletal Muscle - Imaging, Treatment and Clinical Outcomes**

Poster No. 2111

##### **Evaluation Of Factors Influencing Acetabular Stress Changes After Shelf Acetabuloplasty By Finite Element Analysis**

Goto Yusuke

Poster No. 2112

##### **Determination Of Connective Tissue Anatomy Alongside Skeletal Muscle Architecture Using Ultrashort Echo Time MRI**

Manuela Zimmer; Filiz Ates; Geoffrey G. Handsfield

Poster No. 2113

##### **Differences In Vastus Lateralis Muscle Architecture In Individuals With A Patellar Dislocation**

McKenzie S. White; Meredith K. Owen; Chloe B. Schmitz; Caitlin E. Conley; Austin V. Stone; Peter A. Hardy; Brian Noehren



## LIST OF POSTERS

### Monday, February 10, 2025

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-178      Skeletal Muscle - Injury and Healing**

Poster No. 2114

#### **Porcine ACL Transection Injury Induces Clinically-Relevant Deficits In Quadriceps Quality And Fiber Size**

Heather Thompson; Nicholas Thomas; Lily Del Valle; Saleh Al Jundi; Andrew Castro; Jillian Beveridge; Benedikt Proffen; Christopher Fry

Poster No. 2115

#### **Modulating Integrated Stress Response Prevents Muscle Fibrosis While Promoting Muscle Regeneration In Vivo**

Hanzhi Zhang; Alex Brown; Gardner Rees; Andrew S. Brack; Brian Feeley; Xuhui Liu

Poster No. 2116

#### **Muscle-specific HDAC4 Deletion Rescues Lost Muscle Size And Strength Following ACL Injury**

Nicholas T. Thomas; Alexander R. Keeble; Allison M. Owen; Camille R. Brightwell; Sara Gonzalez; Darren L. Johnson; Austin V. Stone; Yuan Wen; Brian Noehren; Christopher Fry

Poster No. 2117

#### **Biosponges Embedded With GDNF Preserve Neuromuscular Junctions Following Volumetric Muscle Loss**

Jamshid Tadiwala; Connor Tobo; Amelia Ridolfo; Matthew Wood; Elif Ertugral; Chandrasekhar Kothapalli; Koyal Garg

Poster No. 2118

#### **Differential Roles Of Hypoxic And Normoxic Mesenchymal Stem Cell-extracellular Vesicles In Enhancing Muscle Repair Following Volumetric Muscle Loss (VML)**

Avantika Jain; Amelia Ridolfo; Mathangi Mohankumar Subramanian; David Johnson; Esha Pattan; Simra Babu; Jacki Kornbluth; Koyal Garg

Poster No. 2119

#### **Heat Stress Impairs Myogenic Capacity In Satellite Cells: Implications For Heat Shock Response In Skeletal Muscle Regeneration**

Nyssa Morgan; Young C. Jang



## LIST OF POSTERS

---

Poster No. 2120

**Inhibition Of Pkc $\beta$ II/p66shc Pro-oxidant Pathway Accelerates Muscle Recovery Following Tourniquet-induced Ischemia-reperfusion Injury**

Tameka C. Dean; Kaitlin Henry; Jessica Murphy; Donna-May djbernard16@gmail.com; Maria De Los Santos; Deja Sibert; Xue Ma



## LIST OF POSTERS

---

### **Monday, February 10, 2025**

10:00 AM - 7:00 PM

Room #: North Hall A-C

#### **PS2-179      Skeletal Muscle - Structure, Function, Mechanics and Mechanobiology**

Poster No. 2121

#### **Evaluation Of Contact Area And Pressure On Total Surface Bearing Sockets During Golf Swing In Two Subjects**

Koji Totoribe; Koki Ouchi; Go Yamako; Gang Deng; Etsuo Chosa

Poster No. 2122

#### **Skeletal Muscle Fiber Bundle Viscoelastic Properties After ACL Rupture And Surgical Reconstruction**

Marie Kimberly Y. Lim; Timothy Tourville; Mathew Failla; Mark S. Miller; Bruce D. Beynnon; Michael J. Toth