Presentation Title	Date & Time	Session Title	Primary Author	Institution
Analyzing Patient And Implant	2/13/2021 6:00	Hip and Knee Arthroplasty -	Jordan Broberg	Western University
Increased 90 Day Mortality	2/13/2021 6:00	Hip and Knee Arthroplasty -	Zeynep Seref-Ferlengez	Montefiore Medical Center
Resilience And Depression	2/13/2021 6:00	Hip and Knee Arthroplasty -	Christopher Carender	University of Iowa
Accuracy Of Acetabular Cup	2/13/2021 6:00	Hip and Knee Arthroplasty -	Yohei Naito	Mie University Graduate
Long Term Outcomes With	2/13/2021 6:00	Hip and Knee Arthroplasty -	Mary Bayers-Thering	Kaleida Health/ SUNY Buffalo
Defining Minimal Clinically	2/13/2021 6:00	Hip and Knee Arthroplasty -	Janie Wilson	McMaster University
Osteoblast Lineage Cells Play A	2/13/2021 6:00	Bone - Injury and Healing	Feini Qu	Washington University in St.
Paradoxical Regulation Of	2/13/2021 6:00	Bone - Injury and Healing	Laura Doherty	UConn Health
A Murine Model Of Post-	2/13/2021 6:00	Bone - Injury and Healing	Megan Oest	SUNY UpstateMedical
Collagen X Biomarker Indicates	2/13/2021 6:00	Bone - Injury and Healing	Zachary Working	Oregon Health & Science
Partial Weight-Bearing	2/13/2021 6:00	Bone - Injury and Healing	Peter Schwarzenberg	Lehigh University
Regulation Of Mitochondrial	2/13/2021 6:00	Bone - Injury and Healing	Rubens Sautchuk Junior	University of Rochester
Chimera Decoy	2/13/2021 6:00	Intervertebral Disc -	Daisuke Fukui	Wakayama Medical University
Endplate Injury Induces Disc	2/13/2021 6:00	Intervertebral Disc -	Ana Chee	Rush University Medical Center
Metabolic Responses Of	2/13/2021 6:00	Intervertebral Disc -	Naomi Lee	University of Missouri
Probing The Role Of	2/13/2021 6:00	Intervertebral Disc -	Li Xiao	University of Virginia
Verteporfin Induces	2/13/2021 6:00	Intervertebral Disc -	Sarah Romereim	Atrium Health
Mesenchymal Stem Cell	2/13/2021 6:00	Intervertebral Disc -	Sebastian Wangler	Department of Orthopaedic
Sex Differences In Response To	2/13/2021 6:00	Biomaterials - Drug Delivery	James Foley	Northwestern University
Patient-specific Internalization	2/13/2021 6:00	Biomaterials - Drug Delivery	Sedat Dogru	Boston University
In Vitro Evaluation Of Loaded Chitosan Membranes For Infection Prevention	2/13/2021 6:00	Biomaterials - Drug Delivery	Zoe Harrison	University of Memphis
Prevention Of External Fixator Pin-tract Infections Using A Synthetic Coating To Provide Controlled Release Of A Novel Broad-spectrum Antibiotic	2/13/2021 6:00	Biomaterials - Drug Delivery	Jonathan Wright	Beaumont Health

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Macromolecular Tanshinone IIA Prodrug-based Thermoresponsive Hydrogel Accelerates The Healing Of Delayed Fracture Union	2/13/2021 6:00	Biomaterials - Drug Delivery	Ningrong Chen	University of Nebraska Medical Center
The Release Of Epigallocatechin Gallate From 3D Printed Scaffolds For Bone Tissue Engineering	2/13/2021 6:00	Biomaterials - Drug Delivery	Yongdeok Jo	Washington State University
Mechanical Force Regulates Scleraxis And Sox9 Expression Dynamics At The Enthesis	2/13/2021 6:00	Tendon and Ligament - Cellular and Molecular Regulation in Growth and Development	Arul Subramanian	University of California, Irvine
Directed Differentiation Of Mescs To Tendon And Fibrocartilage Using Developmental Cues And Scrnaseq	2/13/2021 6:00	Tendon and Ligament - Cellular and Molecular Regulation in Growth and Development	Deepak Kaji	Icahn School of Medicine at Mount Sinai
The Role Of Dicer-mirna Pathway In Development/maturation Of Tendon	2/13/2021 6:00	Tendon and Ligament - Cellular and Molecular Regulation in Growth and Development	Takenori Omoto	Department of Orthopaedic Surgery, Hiroshima University
Tendon Pathology Alters Chromatin Organization And Mechano-sensitivity In Human Tenocytes	2/13/2021 6:00	Tendon and Ligament - Cellular and Molecular Regulation in Growth and Development	Su-Jin Heo	University of Pennsylvania
Stat3 Mediates The Function Of mTORC1 In Fibrovascular Scar Formation During Postnatal Tendon Development	2/13/2021 6:00	Tendon and Ligament - Cellular and Molecular Regulation in Growth and Development	NA RAE PARK	University of Pennsylvania

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Tendon Resident Macrophages Internalize Type 1 Collagen And Express Trophic Signaling Factors	2/13/2021 6:00	Tendon and Ligament - Cellular and Molecular Regulation in Growth and Development	Catherine Bautista	University of Pennsylvania
Opioid Use Disorder Is Associated With Higher Rates Of Complications, Costs, And Readmissions Following Arthroscopic Rotator Cuff Repair: A Matched-control Analysis	2/13/2021 6:00	Clinical Research - Big Data	Eric Roth	Maimonides Medical Center
Predicting Surgical Site Infection After Primary Total Joint Arthroplasty: A Machine Learning Approach	2/13/2021 6:00	Clinical Research - Big Data	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Double Trouble. Worse Subjective Outcome At One Year In 127/3666 Patients With Both Distal Ulnar Metaphyseal And Distal Radius Fracture. A Distal Radius Fracture Register Study.	2/13/2021 6:00	Clinical Research - Big Data	Magnus Tagil	Dep of Orthopedics
Computer-Assisted Navigation Is Associated With Decreased Rates Of Hardware-Related Revision After Instrumented Posterior Lumbar Fusion	2/13/2021 6:00	Clinical Research - Big Data	Sheeraz Qureshi	Hospital for Special Surgery
Effect Of Gender On Hospital Discharge Disposition For Orthopedic Procedures: A Four Year Nsqip Study	2/13/2021 6:00	Clinical Research - Big Data	Timothy Damron	Upstate Orthopedics

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Use Of Machine Learning To Evaluate The Predictive Validity Of 3 Clinical Measures To Quantify Outcomes After Total Shoulder Arthroplasty	2/13/2021 6:00	Clinical Research - Big Data	Christopher Roche	Exactech, Inc
Comparison Of Ankle And Adjacent Joint Kinematics Between Normal Gait And Adaptive Gait With Total Ankle Arthroplasty	2/13/2021 12:00	NIRA-Biomaterials/Materials	Brett Steineman	Hospital for Special Surgery
Heterodimer Bone Morphogenic Protein-2/7 (bmp-2/7) Delivered Via A Collagen-hydroxyapatite Scaffold Demonstrates Enhanced Progenitor Cell Homing And Osteoinductivity Over Homodimer Bmp-2	2/13/2021 12:00	NIRA-Biomaterials/Materials	Deepak Raina	Lund University
Biomanufactured Cell-Decorated Collagen Fiber Grafts Mimic Musculoskeletal Tissue Properties And Promote Functional Recovery	2/13/2021 12:00	NIRA-Biomaterials/Materials	Kyle Christensen	Embody Inc
Nickel-free High-nitrogen Austenitic Steel - A Replacement For Cocrmo-alloy To Battle Tribocorrosion In Healthy And Inflammatory Simulated Synovial Fluids?	2/13/2021 12:00	NIRA-Biomaterials/Materials	Simona Radice	Rush University Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Optimal Surgical Component Alignment Minimizes TKR Wear - An In Silico Study With Nine Alignment Parameters	2/13/2021 12:00	NIRA-Biomaterials/Materials	Steven Mell	Rush University
The Direct Effect Of Nanofiber Based Vitamin D Sheet Engineered With 3d Printing For Tendon To Bone Healing And Muscle Regeneration After Repair In A Chronic Rotator Cuff Tear Model Of Rabbit	2/13/2021 12:00	NIRA-Biomaterials/Materials	Sung-Min Rhee	Kyung Hee University Hospital
Matrix Metalloproteinase (mmp)-degradable Tissue Engineered Periosteum Coordinates Allograft Healing Via Early Stage Recruitment And Support Of Host Neurovasculature	2/13/2021 12:00	NIRA-Biomaterials/Materials	Yiming Li	University of Rohcester
BMP-SMAD1/5 Signaling Is Required For Adequate Coupling Of Angiogenesis And Osteogenesis In Long Bones	2/13/2021 12:00	NIRA-Bone/Periosteum/Tendon	Annemarie Lang	Charité-Universitätsmedizin Berlin
Small Hairpin RNA-mediated Knockdown Of Kinesin Superfamily Member KIF26B Inhibits Heterotopic Ossification By Suppressing Cell Proliferation And Inducing Cellular Apoptosis	2/13/2021 12:00	NIRA-Bone/Periosteum/Tendon	Mingming Yan	Washington University School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Cerebral Palsy Patients As A Model To Study The Effects Of Joint Loading On Capital Femoral Epiphysis Morphology Development	2/13/2021 12:00	NIRA-Bone/Periosteum/Tendon	Shayan Hosseinzadeh	Boston Children's Hospital
Neurovascular Coupling During The Genesis Of Trauma-induced Heterotopic Bone	2/13/2021 12:00	NIRA-Bone/Periosteum/Tendon	Qizhi Qin	John Hopkins University
Platelet-rich Fibrin Accelerates The Healing Of Achilles Tendon Defect By Promoting The Proliferation And Activation Of Tenocytes.	2/13/2021 12:00	NIRA-Bone/Periosteum/Tendon	Yoshiyuki Senga	Mie University
Quantitative MRI Evaluation Of Lesion And Parent Bone In Patients With Juvenile Osteochondritis Dissecans (JOCD) Of The Knee - T2* Mapping And Volumetric Study At 3T	2/13/2021 12:00	NIRA-Bone/Periosteum/Tendon	Stefan Zbyn	University of Minnesota
Mscs And Il-4 Over-expressing Mscs Are Equally Effective In Mitigating Particle-associated Chronic Inflammation	2/13/2021 12:00	NIRA-Infection/Inflammation	Ning Zhang	Stanford University
Differences Between Acute And Chronic Periprosthetic Joint Infection In A Mouse Model; Transition From An Acute To Chronic Infection Start At An Early Time Period	2/13/2021 12:00	NIRA-Infection/Inflammation	Masashi Taguchi	University of Pittsburgh

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Can CRP Predict The Need To Escalate Care After Initial Debridement For Musculoskeletal Infection?	2/13/2021 12:00	NIRA-Infection/Inflammation	Stephanie Moore-Lotridge	Vanderbilt University Medical Center
Therapeutic Assessment Of An Immunomodulator Based Approach To Control Periprosthetic Joint Infection	2/13/2021 12:00	NIRA-Infection/Inflammation	John Hamilton	Rush University Medical Center
Il-27 Suppresses Staphylococcal Abscess Formation In Staphylococcus Aureus Implant-associated Osteomyelitis	2/13/2021 12:00	NIRA-Infection/Inflammation	Yugo Morita	University of Rochester
Drug Testing On A Microphysiological System Modeling Inflammatory And Degenerative Features Of Joint Diseases	2/13/2021 12:00	NIRA-Infection/Inflammation	Zhong Li	University of Pittsburgh
Disc-on-a-chip^{Mf}: An Integrated Microfluidic Platform For Long-term Culture Of Mouse Intervertebral Disc	2/13/2021 12:00	NIRA-Intervertebral Disc/Spine	Wanqing Xie	University of Virginia
Exercise Attenuates Low Back Pain And Alters Epigenetic Regulation In Intervertebral Discs In A Mouse Model.	2/13/2021 12:00	NIRA-Intervertebral Disc/Spine	Yuya Kawarai	McGill University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Chromatin Accessibility Maps Of Human Nucleus Pulposus Cells Identify Degeneration Grade-specific Epigenome Signatures And Gene Regulatory Networks	2/13/2021 12:00	NIRA-Intervertebral Disc/Spine	Steven Presciutti	Emory University
In Vivo CRISPR Receptor Modulation For Treating Disc Degeneration	2/13/2021 12:00	NIRA-Intervertebral Disc/Spine	Joshua Stover	University of Utah
Harmonization And Standardization Of Nucleus Pulposus Cell Culture Methods	2/13/2021 12:00	NIRA-Intervertebral Disc/Spine	Shaghayegh Basatvat	Sheffield Hallam University
Osteoarthritis Disrupts Interdigitation And Mechanical Function Of The Human Osteochondral Interface	2/13/2021 12:00	NIRA-Osteoarthritis/Arthritis	Christopher Mosher	Columbia University
Elevated Levels Of Active Transforming Growth Factor β1 In The Subchondral Bone Relate Spatially To Impaired Bone Quality And Cartilage Loss In Human Knee Osteoarthritis	2/13/2021 12:00	NIRA-Osteoarthritis/Arthritis	Dzenita Muratovic	The University of Adelaide
Distal-less Homeobox 5 Is A Biomarker That Positively Correlates With Osteoarthritic Changes Of The Cartilage And Meniscus	2/13/2021 12:00	NIRA-Osteoarthritis/Arthritis	Neill Li	Brown University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The Wnt Agonist R-spondin 2 Promotes Joint Degeneration In Post-traumatic Osteoarthritis	2/13/2021 12:00	NIRA-Osteoarthritis/Arthritis	Alexander Knights	University of Michigan
Mitoprotective Therapy Reduces Inflammation And Prevents Cartilage Turnover In An In Vivo Model Of Posttraumatic Osteoarthritis	2/13/2021 12:00	NIRA-Osteoarthritis/Arthritis	Michelle Delco	Cornell University
Mild Exercise Alleviates Post-traumatic Osteoarthritis In Part By Expediting Lymphatic Joint Clearance	2/13/2021 12:00	NIRA-Osteoarthritis/Arthritis	Jarred Kaiser	Emory University
The Effect Of Anti-Gravity Treadmill Walking On Biomarkers Of Joint Disease, Pain And Kinematics In Individuals With Knee Osteoarthritis	2/13/2021 12:00	NIRA-Osteoarthritis/Arthritis	Prakash Jayabalan	Shirley Ryan AbilityLab
From A Skin Biopsy To Musculoskeletal Tissue Regeneration - A Single Protein Reprogramming Approach	2/13/2021 12:00	NIRA-Progenitor Cells/Regeneration/Repair	Li Chenshuang	University of Pennsylvania, School of Dental Medicine
Transient Expansion And Myofibroblast Conversion Of Marrow Adipogenic Lineage Precursors (malps) Mediate Bone Marrow Repair After Radiation	2/13/2021 12:00	NIRA-Progenitor Cells/Regeneration/Repair	Leilei Zhong	University of Pennsylvania

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Pdgfrα⁺Periosteal Progenitors Are Critical For Periosteal Function	2/13/2021 12:00	NIRA-Progenitor Cells/Regeneration/Repair	Jiajia Xu	Johns Hopkins University
The Efficacy Of Preconditioned Or Genetically-modified IL4 Over-expressing Mesenchymal Stromal Cells For Augmentation Of Core Decompression In Steroid-associated Osteonecrosis Of The Femoral Head In Rabbits	2/13/2021 12:00	NIRA-Progenitor Cells/Regeneration/Repair	Masahiro Maruyama	Stanford University School of Medicine
Identification And Characterization Of A Genetic Marker For Epitenon Cells	2/13/2021 12:00	NIRA-Progenitor Cells/Regeneration/Repair	Anne Nichols	Center for Musculoskeletal Research, University of Rochester Medical Center
A Subset Of FAP Cells Expressing Gli1 Promote Muscle Regeneration With Less Fat Accumulation	2/13/2021 12:00	NIRA-Progenitor Cells/Regeneration/Repair	Lutian Yao	University of pennsylvania
Estimating Infant Hip Joint Moments Using A Novel Musculoskeletal Model	2/13/2021 18:00	Hip - Growth and Dysplasia	Victor Huayamave	Embry-Riddle Aeronautical University
Comparison Of Acetabular Morphology Changes In Pediatric Pelvic Osteotomies Using Patient-Specific 3-D Models	2/13/2021 18:00	Hip - Growth and Dysplasia	Samuel Baird	University of California San Diego

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Squat Depth And Sagittal Plane Dynamic Hip Range Of Motion During Single-leg Squat Improves Following Hip Arthroscopic Surgery For Femoroacetabular Impingement Syndrome	2/13/2021 18:00	Hip - Growth and Dysplasia	Alejandro Espinoza Orias	Rush University Medical Center
Hip Dysplasia Elevates Loading At The Posterior Acetabular Edge During Double-legged Squat	2/13/2021 18:00	Hip - Growth and Dysplasia	Ke Song	Washington University in St. Louis
Evaluation Of Serum And Urine Biomarkers For Developmental Dysplasia Of The Hip	2/13/2021 18:00	Hip - Growth and Dysplasia	Preston Wolfe	University of Missouri Columbia
Effects Of Pelvic Incidence On Hip Impingement And Dysplasia Mobility	2/13/2021 18:00	Hip - Growth and Dysplasia	Geoffrey Ng	Imperial College London
Size-dependent Solute Diffusivity In Synovial Explants Parallels In Vivo Intra-articular Drug Transport	2/13/2021 18:00	Cartilage and Synovium - Structure, Function and Mechanics	Alexandra Davis	Washington University in St. Louis
The Effect Of Subchondral Bone Plate Thickness And Trabecular Bone Volume Fraction On The Mechanical Behavior Of Cartilage In Post-traumatic Osteoarthritis	2/13/2021 18:00	Cartilage and Synovium - Structure, Function and Mechanics	Heta Orava	University of Eastern Finland

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Rigidity Percolation Framework To Understand How Changes In Composition Alter Cartilage Tissue Mechanics	2/13/2021 18:00	Cartilage and Synovium - Structure, Function and Mechanics	Thomas Wyse Jackson	Cornell University
Zonal Dependent Associations Between Raman Spectroscopy And Magnetic Resonance Imaging-based Hydration Status Assessment Of Osteoarthritic Human Cartilage Specimens	2/13/2021 18:00	Cartilage and Synovium - Structure, Function and Mechanics	MUSTAFA UNAL	KARAMANOGLU MEHMETBEY UNIVERSITY
Exploring Biosolid And Biofluid Dynamics In Articular Cartilage Using X-ray Photon Correlation Spectroscopy	2/13/2021 18:00	Cartilage and Synovium - Structure, Function and Mechanics	Brittany Partain	University of Florida
Obesity Increases Patellofemoral Joint Cartilage Strains In Response To Walking	2/13/2021 18:00	Cartilage and Synovium - Structure, Function and Mechanics	Krystal Tamayo	Duke University
An Enhanced Recovery After Spine Surgery Clinical Pathway Results In A Shorter Length Of Hospital Stay And Reduced Costs	2/13/2021 18:00	Spine	Connor Delman, MD	University of California, Davis, Department of Orthopaedics
In Vivo Kinematics Of The Head-neck Complex During Dynamic Axial Rotation Of The Head	2/13/2021 18:00	Spine	Chaochao Zhou	Massachusetts General Hospital
Radiographic Lumbar Spondylosis Evaluated By A Novel Semi-quantitative Method	2/13/2021 18:00	Spine	Junichi Yamada	Mie university

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Alterations In Facet Joint Biomechanics With Intervertebral Disc Degeneration	2/13/2021 18:00	Spine	Sachin Gupta	University of Pennsylvania
Treatment Of Highly Skeletally Immature AIS Patients With Major Thoracic Curves: Observation, Bracing, Or Vertebral Growth Modulation	2/13/2021 18:00	Spine	Donita Bylski-Austrow	University of Cincinnati
Strains Measured From Digital Tomosynthesis Based Digital Volume Correlation Correlate With Those From Microcomputed Tomography In Human Vertebrae	2/13/2021 18:00	Spine	Daniel Oravec	Henry Ford Health System
NAD(P)H Autofluorescence Lifetime Imaging Enables Single Cell Analyses Of Osteoblast Cellular Metabolism	2/13/2021 18:00	Bone - Growth, Development and Aging	Kevin Schilling	University of Rochester
The Amino Acid Transporter Slc38a2/SNAT2 Provides Proline To Fulfill Biosynthetic Demands During Osteoblast Differentiation.	2/13/2021 18:00	Bone - Growth, Development and Aging	Leyao Shen	Duke University
Crosstalk Between Androgens And Endogenous Glucocorticoid-Mediated Signaling In Skeletal Development And Maintenance	2/13/2021 18:00	Bone - Growth, Development and Aging	Anuj Sharma	Augusta University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
SIRT3 Regulates Bone Homeostasis And Mediates The Response Of Osteocyte To Exercise	2/13/2021 18:00	Bone - Growth, Development and Aging	Qiangqiang LI	The Chinese University of Hong Kong
Craniofacial Reconstruction Using Stem Cells Embedded In 3d Printable Bio-ink	2/13/2021 18:00	Bone - Growth, Development and Aging	Dmitriy Sheyn	Cedars-Sinai Medical Center
Macrophage Lineage Hdac3 Deletion Enhances Bone Healing And Promotes Lcn2-dependent Macrophage Metabolic Reprogramming	2/13/2021 18:00	Bone - Growth, Development and Aging	David Molstad	University of Minnesota
Shoulder Arthroplasty Smart Score	2/13/2021 18:00	Clinical Research - Methods and Machine Learning	Christopher Roche	Exactech, Inc
Chlorhexidine, Hydrogen Peroxide, And Povidone-iodine Fail to Eradicate Staphylococcus Aureus Biofilm From Infected Implant Materials	2/13/2021 18:00	Clinical Research - Methods and Machine Learning	Dana Parker	University of Pittsburgh
Collaborative Creation Of Regional Opioid Prescribing Guidelines In Orthopedics: Description Of A Process, Its Effectiveness, And Its Impact On Provider Satisfaction	2/13/2021 18:00	Clinical Research - Methods and Machine Learning	Clayton Del Prince	UBMD Orthopaedics & Sports Medicine
Machine Learning Model For The Prediction Of Revision Total Joint Arthroplasty In Patients With Osteoporosis	2/13/2021 18:00	Clinical Research - Methods and Machine Learning	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Predicting Anterior Cruciate Ligament Reconstruction Failure: A Machine Learning Analysis Utilizing The Norwegian Knee Ligament Registry	2/13/2021 18:00	Clinical Research - Methods and Machine Learning	R. Kyle Martin	University of Minnesota
Staphylococcus Aureus Yoeb Genes Are Associated With Increased Antibiotic-tolerance And Biofilm Formation That Is Extracellular Dna Dependent	2/13/2021 18:00	Clinical Research - Methods and Machine Learning	Kenneth Urish	University of Pittsburgh
Bulk Tendon Regeneration In Electrochemically Aligned Collagen Scaffolds In A Rabbit Rotator Cuff Model	2/13/2021 18:00	Resident/Fellow Research Competition	Jason Ina	University Hospitals Cleveland Medical Center
Modeling Adult-acquired Flatfoot Deformity On Kinematics Via A Robotic Gait Simulator	2/13/2021 18:00	Resident/Fellow Research Competition	Jensen Henry	Hospital for Special Surgery
Gender And Ethnic Diversity In Orthopaedic Residency In Comparison To Other Surgical Specialties	2/13/2021 18:00	Resident/Fellow Research Competition	Max Haffner	Department of Orthopaedic Surgery, University of California Davis
Determining Transfer Effectiveness Of Immersive Virtual Reality Skills Training: A Randomized Intervention-Controlled Trial	2/13/2021 18:00	Resident/Fellow Research Competition	Ryan Lohre	University of British Columbia

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Treatment With Arthroplasty Following Hip Fracture Is Associated With Hypercoagulability And Increased Venous Thromboembolism Risk	2/13/2021 18:00	Resident/Fellow Research Competition	Daniel You	University of Calgary
Mechano-sensitive Mir-365 Induces Osteoarthritis Via De-repression Of Retrotransposon L1 In Cartilage Genome	2/13/2021 18:00	Resident/Fellow Research Competition	Yun Gao	Brown University
Medial Unicompartmental Knee Arthroplasty Restores Kinematics Without Affecting Lateral Compartment Contact Location And Joint Space During Walking And Stair Descent	2/14/2021 6:00	Knee - Gait and Kinematics	Venkata Kalyan Byrapogu	University of Pittsburgh
Gait Retraining Induced Changes In Center Of Pressure Associated With Reductions In Knee Adduction Moment Following ACL Reconstruction	2/14/2021 6:00	Knee - Gait and Kinematics	Gordhan Mahtani	Stanford University
Sex Differences In Athletes Knee Abduction Revealed Through Dynamic Biplane Radiography Of Fast Running	2/14/2021 6:00	Knee - Gait and Kinematics	Kyohei Nishida	University of Pittsburgh
How Does The Normal Knee Behave? Results Of A Robotic Cadaveric Study On 85 Human Specimens	2/14/2021 6:00	Knee - Gait and Kinematics	John Kyle Mueller	Zimmer Biomet

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Analyzing Knee Bone Remodeling In Basketball Players After One Season Of Play	2/14/2021 6:00	Knee - Gait and Kinematics	Kenneth Gao	University of California, San Francisco
Gait Retraining Using Pressure-based Auditory Feedback In Medial Knee Osteoarthritis	2/14/2021 6:00	Knee - Gait and Kinematics	Jade He	Rush University Medical Center
Comparison Of Patient Demographics And Risk Factors For Dislocations Following Primary Reverse Shoulder Arthroplasty	2/14/2021 6:00	Shoulder and Elbow - Surgery and Arthroplasty	Samuel Swiggert	Maimonides Medical Center
The Effect Of Humeral Head Backside Contact On Humeral Bone Stress Following Total Shoulder Arthroplasty With A Short Humeral Stem	2/14/2021 6:00	Shoulder and Elbow - Surgery and Arthroplasty	G Daniel Langohr	The University of Western Ontario
Clinical Use Of A Novel Load Sensing Humeral Liner Trial For Reverse Total Shoulder Arthroplasty	2/14/2021 6:00	Shoulder and Elbow - Surgery and Arthroplasty	Alexander Greene	Exactech, Inc.
Effect Of Combined Prosthesis Placement Modifications On The Biomechanics Of Reverse Shoulder Arthroplasty	2/14/2021 6:00	Shoulder and Elbow - Surgery and Arthroplasty	Jonathan Glenday	Hospital for Special Surgery

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Results Of A Machine Learning Algorithm For Automatic Three-dimensional Segmentation Of Computed Tomography Scans Of The Shoulder	2/14/2021 6:00	Shoulder and Elbow - Surgery and Arthroplasty	Alexander Greene	Exactech, Inc.
Development Of A Statistical Shape Model Of Walch-type Eroded Scapulae Of Patients Treated With Reverse Total Shoulder Arthroplasty	2/14/2021 6:00	Shoulder and Elbow - Surgery and Arthroplasty	Joshua Giles	University of Victoria
Optimized Implants To Control Bone Strain And Healing	2/14/2021 6:00	Biomaterials - Metal Implants	Maxwell Munford	Imperial College London
Do Total Shoulder Arthroplasty Implants Corrode?	2/14/2021 6:00	Biomaterials - Metal Implants	Alexander Hornung	Rush University Medical Center
Designing 3D-printed Titanium-tantalum Alloy Bone Implants For Enhanced Biocompatibility	2/14/2021 6:00	Biomaterials - Metal Implants	Indranath Mitra	Washington State University
Bone-implant Stiffness And Load Sharing During Bone Ingrowth Into A Novel Surface Topology	2/14/2021 6:00	Biomaterials - Metal Implants	Elizabeth Mathey	University of Colorado Denver
Could Alzheimer's Disease Pathology Be Associated With Metals Released From Total Joint Replacements?	2/14/2021 6:00	Biomaterials - Metal Implants	Puja Agarwal	Rush University Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
In Vivo Assessment Of Biocompatibility And Antibacterial Efficacy Of A Dopamine-functionalized Sulphated Hyaluronic Acid Coating For Orthopedic Implants	2/14/2021 6:00	Biomaterials - Metal Implants	Cristian Guarise	Fidia Farmaceutici SpA
Can Bone Health Improvement From The Initial 2-year Calcium And Vitamin D Supplementation Persist Towards Peak Bone Mass After 4-year Of Supplement Discontinuation	2/14/2021 6:00	Clinical Research - Randomized Studies and Systematic Reviews	Tsz Ping Lam	The Chinese University of Hong Kong
Perioperative Counseling Reduces Opioid Use Following Primary Total Joint Arthroplasty	2/14/2021 6:00	Clinical Research - Randomized Studies and Systematic Reviews	Christopher Carender	University of Iowa
Utility Of Fibular Fixation In Same-level Tibia And Fibula Fractures: A Randomized Controlled Trial	2/14/2021 6:00	Clinical Research - Randomized Studies and Systematic Reviews	Prism Schneider	University of Calgary
Efficacy Of Intraoperative Platelet-rich Plasma (PRP) Augmentation Andpostoperative Prp Booster Injection In Rotator Cuff Healing - A Randomized Controlled Trial -	2/14/2021 6:00	Clinical Research - Randomized Studies and Systematic Reviews	Hyeon Jang Jeong	Seoul National University Bundang Hospital
Defining Return To Sport: A Systematic Review	2/14/2021 6:00	Clinical Research - Randomized Studies and Systematic Reviews	Jack Ayres	University of Kansas School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Psychological Burnout And Age Of Sport Specialization: A Profile For Current Ncaa Big 12 Student-athletes	2/14/2021 6:00	Clinical Research - Randomized Studies and Systematic Reviews	Nick Giusti	University of Kansas Medical Center
Proliferation And Metabolism Of Chondrocytes After Traumatic Loading	2/14/2021 6:00	Cartilage and Synovium - Different Influences on the Chondrocytes	Annie Porter	University of Delaware
A Big Data Approach To Understanding In Situ Chondrocyte Response To Impact Loading In Articular Cartilage	2/14/2021 6:00	Cartilage and Synovium - Different Influences on the Chondrocytes	Jingyang Zheng	Cornell University
Relationships Among Patient-specific Variables And Osteoarthritic Chondrocyte Metabolism	2/14/2021 6:00	Cartilage and Synovium - Different Influences on the Chondrocytes	Spencer DeLucia	University of Missouri Columbia
Unilateral And Bilateral Acl Injuries Exhibit Distinct Vulnerability Of Chondrocytes To Injurious Mechanical Forces.	2/14/2021 6:00	Cartilage and Synovium - Different Influences on the Chondrocytes	Alexander Kotelsky	University of Rochester
Disrupting Epigenetic Remodeling During Monolayer Expansion Enhances Regenerative Potential Of Chondrocytes	2/14/2021 6:00	Cartilage and Synovium - Different Influences on the Chondrocytes	Adrienne Scott	University Of Colorado Boulder
Skeletal Dysplasia-causing Mutations In The Ion Channel TRPV4 Alter Human Ipsc Chondrogenic Differentiation And Calcium Signaling	2/14/2021 6:00	Cartilage and Synovium - Different Influences on the Chondrocytes	Amanda Dicks	Washington University in St. Louis

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Deep Learning For Automatic Segmentation And Biomarker Extraction In Lumbar Spine MRI	2/14/2021 6:00	Imaging - Advanced Imaging and Analysis	Madeline Hess	University of California, San Francisco
Bone Health Assessment Via Digital Wrist Tomosynthesis In The Mammography Setting	2/14/2021 6:00	Imaging - Advanced Imaging and Analysis	Yener Yeni	Henry Ford Hospital
Variations In Bone Shape Related To Initial And Recurrent Patellar Dislocations	2/14/2021 6:00	Imaging - Advanced Imaging and Analysis	Mingrui Yang	Cleveland Clinic
Enhanced µCT Imaging Enables High Resolution 3D Visualization Of Microdamage In Rat Vertebrae	2/14/2021 6:00	Imaging - Advanced Imaging and Analysis	Allison Tolgyesi	Institute of Biomaterials and Biomedical Engineering, University of Toronto
Development Of An Automated Segmentation Pipeline: Medical Images To Finite Element Hex Meshes In An Extensible Python Package	2/14/2021 6:00	Imaging - Advanced Imaging and Analysis	Clare Fitzpatrick	Boise State University
Automated Magnetic Resonance Image Segmentation Of Intact Anterior Cruciate Ligaments	2/14/2021 6:00	Imaging - Advanced Imaging and Analysis	Sean Flannery	Brown University
Effect Of Surgical Reconstruction On Gait Kinematics In Adult Acquired Flatfoot Deformity Via A Robotic Gait Simulator	2/14/2021 12:00	Foot and Ankle - Kinematics/Kinetics	Jensen Henry	Hospital for Special Surgery

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Biomechanical Limb Symmetry Improves Following Taa And Is Not Restored To The Level Of Healthy Participants	2/14/2021 12:00	Foot and Ankle - Kinematics/Kinetics	Nicole Stark	Virginia Tech
Syndesmosis Repair Affects In Vivo Distal Interosseous Tibiofibular Ligament Elongation Under Static Loads And During Dynamic Activities	2/14/2021 12:00	Foot and Ankle - Kinematics/Kinetics	William Anderst	University of Pittsburgh
Dynamic Subtalar Joint Congruence Analysis Following Tibiotalar Arthrodesis And Total Ankle Replacement	2/14/2021 12:00	Foot and Ankle - Kinematics/Kinetics	Rich Lisonbee	University of Utah
4DCT Shows Improved Syndesmotic Motion After Flexible Fixation Compared To Rigid Fixation	2/14/2021 12:00	Foot and Ankle - Kinematics/Kinetics	Murray Wong	University of Calgary
The Stability Of Total Talar Prosthesis. How Stable To Dislocation, Cadaveric Study	2/14/2021 12:00	Foot and Ankle - Kinematics/Kinetics	Go Sato	Department of Orthopedic Surgery, Asahikawa Medical University
Phlpp1 Is Induced By Estrogen In Osteoclasts And Its Loss In Ctsk-expressing Cells Does Not Protect Against Ovx-induced Bone Loss	2/14/2021 12:00	Bone - Disease and Disorders	Ismael Karkache	University of Minnesota
Il-17ra Signaling Represses Runx1 To Promote Osteoclastogenesis And Bone Resorption	2/14/2021 12:00	Bone - Disease and Disorders	Joseph Roberts	Emory University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Annexin A1 (anxa1) For Potential Therapeutic And Translatable Intervention In Bone Diseases Typified By Pathological Bone Resorption	2/14/2021 12:00	Bone - Disease and Disorders	MAlaa Terkawi	Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ
High Fat Diet Induces A Skeletal Neuropathy And Bone Loss In Mice	2/14/2021 12:00	Bone - Disease and Disorders	Masnsen Cherief	Johns Hopkins University
High Frequency Spectral Ultrasound Imaging Detects Early Post Traumatic Heterotopic Ossification In Rodents	2/14/2021 12:00	Bone - Disease and Disorders	Nicole Edwards	University of Michigan
First Steps Towards The Establishment Of An In Vitro Trabecular Human Bone Model	2/14/2021 12:00	Bone - Disease and Disorders	Annemarie Lang	Charité-Universitätsmedizin Berlin
Restoring Pre-Arthritic Slope Optimizes Internal And External Rotation Of The Medial Stabilized Posterior Cruciate Ligament Retaining TKA	2/14/2021 12:00	Clinical Research - Observational Studies	Alexander Nedopil	University of Würzburg
Epidemiology Of Anterior Cruciate Ligament Tears In The National Football League	2/14/2021 12:00	Clinical Research - Observational Studies	Riann Palmieri-Smith	University of Michigan
Computer-assisted TKA Provides Improved Functional Outcomes Compared To Conventional TKA	2/14/2021 12:00	Clinical Research - Observational Studies	Gérard Giordano	Hôpital Joseph Ducuing

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Quantifying Mediators Of Racial Disparities In Osteoarthritis Outcomes Scores	2/14/2021 12:00	Clinical Research - Observational Studies	Christina McCarthy	Louisiana State University Health Sciences Center-Department of Orthopedic Surgery
Clinical And Radiographic Outcomes Of Distal Femoral Prostheses In Pediatric Osteosarcoma Patients	2/14/2021 12:00	Clinical Research - Observational Studies	Clayton Welsh	College of Medicine, University of Central Florida
Factors Associated With Low Back Pain-related Quality Of Life: A Population-based Cohort Study	2/14/2021 12:00	Clinical Research - Observational Studies	Norihiko Takegami	Mie University Graduate School of Medicine
Characterization Of Tissue-specific Biomarker Profiles For Osteoarthritic Hips	2/14/2021 12:00	Hip - Clinical	Preston Wolfe	University of Missouri Columbia
Quasi-static MRI Motion Analysis To Study Hip Translation And Its Association With Hip Rotation And Morphology	2/14/2021 12:00	Hip - Clinical	Alireza Emami	Boston CHildren's Hospital
The Effect Of Genetically-modified Platelet Derived Growth Factor-bb Over-expressing Mesenchymal Stromal Cells During Core Decompression For Steroid-associated Osteonecrosis Of The Femoral Head In Rabbits	2/14/2021 12:00	Hip - Clinical	Roberto Guzman	Stanford University School of Medicine
The Efficacy And Safety Of Tranexamic Acid (TXA) In Hip Fracture Surgery. A Non-randomized Prospective Study Of 612 Patients.	2/14/2021 12:00	Hip - Clinical	Mutaz AlSumadi	Countess of Chester NHS Foundation Trust

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Changes In Pelvic Floor Dysfunction After Hip Surgery	2/14/2021 12:00	Hip - Clinical	Amisha Mehta	UT Southwestern Medical Center
MRI Findings And Serum CRP/albumin Ratio Can Improve The Preoperative Diagnostic Accuracy For SAH In Rapid Destructive Hips With False Negative Microbiological Culture.	2/14/2021 12:00	Hip - Clinical	Koki Abe	Yokohama city University
Leveraging Hedgehog Signaling To Improve Tendon-to-Bone Repair	2/14/2021 12:00	Tendon and Ligament - Injury and Therapeutics	Timur Kamalitdinov	University of Pennsylvania
Evaluation Of Ss-31 As A Potential Therapeutic In The Treatment Of Tendinopathy	2/14/2021 12:00	Tendon and Ligament - Injury and Therapeutics	Xueying Zhang	Hospital for Special Surgery
Migration And Activation Of Cd146⁺ Stem Cells Induced By Injection Of Frhmgb1 Prevent Tendon Overuse Injury	2/14/2021 12:00	Tendon and Ligament - Injury and Therapeutics	Feng Li	University of Pittsburgh
Collagen V Knockdown During Phases Of Tendon Healing Differentially Impacts Gene Expression	2/14/2021 12:00	Tendon and Ligament - Injury and Therapeutics	Ryan Leiphart	University of Pennsylvania
Regulation Of Il-33 Signaling By Tregs Distinguishes Regenerative And Non-regenerative Tendon Healing	2/14/2021 12:00	Tendon and Ligament - Injury and Therapeutics	Varun Arvind	Icahn School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
MRL/MpJ Tendon-Derived Provisional Extracellular Matrix And Secretome Modulate Canonical Healing Tendon Cells Toward Regenerative Behavior	2/14/2021 12:00	Tendon and Ligament - Injury and Therapeutics	Jason Marvin	Cornell University
Emerging Methods For 3-dimensional Volume Interrogation Of Staphylococcus Aureus Pathogenesis In The Osteocyte Canalicular Network	2/14/2021 12:00	Infection - Therapeutic Treatments and Diagnosis	Karen de Mesy Bentley	University of Rochester
Network Analysis Of Cytokines And Phosphoproteins To Identify New Biomarker Targets In Periprosthetic Joint Infection (PJI)	2/14/2021 12:00	Infection - Therapeutic Treatments and Diagnosis	Nicole Prince	West Virginia University School of Medicine
Topical Vancomycin Treatment Does Not Impair Long-term Fracture Healing In Diabetic Rats And Dose-dependently Inhibits Mineralized Nodule Formation	2/14/2021 12:00	Infection - Therapeutic Treatments and Diagnosis	David Paglia	Rutgers University (NJMS)
Staged Combination Strategies Of Antibiotics Against Adherent Bacteria	2/14/2021 12:00	Infection - Therapeutic Treatments and Diagnosis	Selin Isguven	Department of Orthopaedics, Thomas Jefferson University
Image-guided Intraarticular Hip Injections And Risk Of Infection After Hip Arthroscopy	2/14/2021 12:00	Infection - Therapeutic Treatments and Diagnosis	Nathan Varady	Massachusetts General Hospital

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Clinical Utilization Of Species-specific Immunoassays For Identification Of S. Aureus And Streptococcus Agalactiae In Orthopaedic Infections	2/14/2021 12:00	Infection - Therapeutic Treatments and Diagnosis	Aron Sulovari	Center for Musculoskeletal Research, University of Rochester Medical Center, Rochester, NY
Muscle Forces Drive Distribution And Structure Of Collagens In The Developing Skeleton	2/14/2021 18:00	Cartilage and Synovium - Mechanobiology	Saima Ahmed	Imperial College London
Extracellular Protein Radical Formation After Damage To Articular Cartilage	2/14/2021 18:00	Cartilage and Synovium - Mechanobiology	Madeline Hines	The University of Iowa
Mitochondrial ROS Is Required For Matrix Synthesis In Mechanically Stimulated Chondrocytes	2/14/2021 18:00	Cartilage and Synovium - Mechanobiology	Aisha Momin	Ryerson University
A Mechanobiological Model Combining Inflammation And Biomechanical Stimulus To Predict Cell Death And Subsequent Proteoglycan Loss In Articular Cartilage After Traumatic Injury	2/14/2021 18:00	Cartilage and Synovium - Mechanobiology	Joonas Kosonen	University of Eastern Finland
Predicting Chondrocyte Hypertrophy Due To Mechanical And Inflammatory Cues: A Multiscale In-silico Approach.	2/14/2021 18:00	Cartilage and Synovium - Mechanobiology	Satanik Mukherjee	Biomechanics Section, KU Leuven
Effects Of Knee Loading And Kinematic Factors On Cartilage Tissue And Cell Responses	2/14/2021 18:00	Cartilage and Synovium - Mechanobiology	Catherine Yuh	Rush University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Morphological Changes Of The Carpometacarpal Joint Associated With Strength Measures In Patients With Early Carpometacarpal Osteoarthritis Over A 6-year Period	2/14/2021 18:00	Hand and Wrist	Edgar Garcia-Lopez	The Warren Alpert Medical School of Brown University and Rhode Island Hospital
Fully-automated Segmentation Of Real-time Wrist MRI Using Convolutional Neural Networks	2/14/2021 18:00	Hand and Wrist	Abhijit Chaudhari	University of California Davis
Effective Parameters Of Dynamic Contrast Enhanced Magnetic Resonance Imaging Of Hand To Evaluate Drug Treatment Response In Rheumatoid Arthritis Patients	2/14/2021 18:00	Hand and Wrist	Yu Mori	Department of Orthopaedic Surgery, Tohoku University Graduate School of Medicine
Thenar And Hypothenar Muscular Coverage On The Transverse Carpal Ligament	2/14/2021 18:00	Hand and Wrist	Zong-Ming Li	University of Arizona
Diagnostic Utility Of Superb Microvascular Ultrasound Imaging To Visualize Enriched Microvascular Flow In Patients With Carpal Tunnel Syndrome	2/14/2021 18:00	Hand and Wrist	Takeshi Endo	Hokkaido University
The Moment Arms And Leverage Of The Human Finger Muscles	2/14/2021 18:00	Hand and Wrist	Fraser Francis-Pester	University of Melbourne

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Cannabis Use Disorder Is Associated With Higher Rates Of Complications And Costs Following Primary Total Hip Arthroplasty	2/14/2021 18:00	Hip and Knee Arthroplasty - Complications/Infections	Rushabh Vakharia	Maimonides Medical Center
Inhibition Of PAD4 Mediated Neutrophil Extracellular Traps Prevents Fibrotic Osseointegration Failure	2/14/2021 18:00	Hip and Knee Arthroplasty - Complications/Infections	Emile-Victor Kuyl	Hospital for Special Surgery
Paracrine ATP Signaling Propagates In Vitro Macrophage Responses To Orthopaedic Wear Particles Independently Of P2X7R	2/14/2021 18:00	Hip and Knee Arthroplasty - Complications/Infections	Edward Greenfield	Indiana University School of Medicine
Sars-CoV-2 Lymphocyte Response And Antibody Titers In Total Joint Replacement Surgery Candidates: Implications For Covid-19 Protective Immunity Pre-operatively.	2/14/2021 18:00	Hip and Knee Arthroplasty - Complications/Infections	Marco Caicedo	Rush University Medical Center
Multidrug Resistance In Pji Before And After H1n1 Pandemic	2/14/2021 18:00	Hip and Knee Arthroplasty - Complications/Infections	Samuel Clarkson	Rothman Orthopaedic Institute
Insight Into Local And Systemic Immune Responses In The Acute Phase Of Peri-prosthetic Joint Infection In A Clinically Representative Mouse Model	2/14/2021 18:00	Hip and Knee Arthroplasty - Complications/Infections	Sita Nirupama Nishtala	Hospital for Special Surgery

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The ACL Can Hypertrophy In Response To Mechanical Loading: An MRI Study In Elite Athletes	2/14/2021 18:00	Tendon and Ligament - Mechanics	Melanie Beaulieu	University of Michigan
Application Of A Fast Fourier Transform-based Analysis Method To Ultrasound Imaging Of The Rat Achilles Tendon	2/14/2021 18:00	Tendon and Ligament - Mechanics	Thomas Leahy	University of Pennsylvania
Finite Element Model Of The Micromechanical Environment In The Impinged Achilles Tendon Insertion	2/14/2021 18:00	Tendon and Ligament - Mechanics	Keshia Mora	University of Rochester
Post-fatigue Injury Increase In Glycosaminoglycan Content Is Associated With A Reparative Outcome From Subsequent Therapeutic Exercise	2/14/2021 18:00	Tendon and Ligament - Mechanics	Rebecca Bell	Cornell University
Static Mechanical Stimulus Is More Beneficial For Aged Tendons In Preventing Disuse-Related Degeneration In Vitro	2/14/2021 18:00	Tendon and Ligament - Mechanics	Brianne Connizzo	Massachusetts Institute of Technology
Adverse Mechanical Consequences From Abnormal Activation And Deactivation Of The Mtorc1 Pathway In Tendons	2/14/2021 18:00	Tendon and Ligament - Mechanics	Snehal Shetye	University of Pennsylvania

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Immuno-modulatory Role Of Mechanical Stimulation In Aged Skeletal Muscle Regeneration	2/14/2021 18:00	Skeletal Muscle	Stephanie McNamara	Harvard University
The Dystrophic Microenvironment Negatively Affects The Muscle Healing Process Of Wild Type Mice Following Parabiotic Pairing	2/14/2021 18:00	Skeletal Muscle	Lu Aiping	Steadman Philippon Research Institute
Polarized Macrophage Exosomes Improve Muscle Quality In Rotator Cuff Muscle Injury Model In Mice	2/14/2021 18:00	Skeletal Muscle	Mengyao Liu	UCSF Orthopaedic Surgery
Laminin-111 Enriched Fibrin Gels Promote Muscle Regeneration And Function Following Volumetric Muscle Loss	2/14/2021 18:00	Skeletal Muscle	Natalia Ziemkiewicz	Saint Louis University
Skeletal Muscle Contains Skeletal Stem Cells With High Bone Regenerative Potential	2/14/2021 18:00	Skeletal Muscle	Yu Liu	Boston University
Telomerase Reverse Transcriptase Identifies A Subset Of Myogenic Stem Cells And Is Necessary For Their Myogenic Potential	2/14/2021 18:00	Skeletal Muscle	Stewart Kim	Stanford University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Lorecivivint (SM04690), An Intra-articular, Small-molecule CLK/DYRK1A Inhibitor That Modulates The Wnt Pathway, As A Potential Treatment For Meniscal Injuries	2/14/2021 18:00	A Focus on Translational Research	Vishal Deshmukh	Samumed, LLC
Design Optimization And Mechanical Verification Of A Stress-reducing, Enthesis-mimicking Bone-tendon Graft For Rotator Cuff Repair	2/14/2021 18:00	A Focus on Translational Research	Chenyang WANG	Institute for Tissue Engineering and Regenerative Medicine
The Talking Knee Is A Reality: Remote Patient Monitoring Prosthesis For Total Knee Arthroplasty	2/14/2021 18:00	A Focus on Translational Research	Fred Cushner	Hospital for Special Surgery
Dose-dependent, Disease Modifying Activity Of The Gp130 Modulator Cx-011 In A Canine Model Of Osteoarthritis	2/14/2021 18:00	A Focus on Translational Research	Candace Flynn	University of Guelph
Defining The Role Of FAPs In Muscle Degeneration After Massive Rotator Cuff Tear In Mice	2/15/2021 6:00	Shoulder and Elbow - Biology and Biologics	Zili Wang	University of California, San Francisco
The Role Of The Subacromial Bursa In Rotator Cuff Disease In A Rat Model	2/15/2021 6:00	Shoulder and Elbow - Biology and Biologics	Brittany Marshall	Columbia University
Delivery Of Tendon Progenitor Cells Enhances Functional Rotator Cuff Tendon Healing	2/15/2021 6:00	Shoulder and Elbow - Biology and Biologics	Alice Huang	Icahn School of Medicine at Mount Sinai

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Rotator Cuff Healing Enhancement By Blocking Of Transforming Growth Factor-beta (tgf-β) With And Without Bone Marrow Stimulation: Biomechanical And Histopathological Results Of A Rabbit Model Study	2/15/2021 6:00	Shoulder and Elbow - Biology and Biologics	Jon Miles	Steadman Philippon Research Institute
Characterization Of CD146⁺ Progenitor Cells From Human Rotator Cuff Tendon And Bursa	2/15/2021 6:00	Shoulder and Elbow - Biology and Biologics	Chang Lee	Columbia University
Effects Of Simvastatin And Losartan In A Rat Injury Model Of Post-traumatic Elbow Contracture	2/15/2021 6:00	Shoulder and Elbow - Biology and Biologics	Michael David	Washington University in St. Louis
Musculoskeletal Limb Reconstruction Through Fully Implanted Endoprostheses: An In Vivo Feasibility Study	2/15/2021 6:00	Bone - Treatment and Therapeutics	Patrick Hall	University of Tennessee, Knoxville
Identifying Subject-specific Determinants Of Femoral Neck Strain During Walking	2/15/2021 6:00	Bone - Treatment and Therapeutics	Mariana Kersh	University of Illinois at Urbana-Champaign
The Effect Of Denosumab And Alendronate On Trabecular Plate And Rod Microstructure At The Distal Tibia And Radius: A Post-hoc HR-pQCT Study	2/15/2021 6:00	Bone - Treatment and Therapeutics	Yizhong Jenny Hu	Bone Bioengineering Laboratory, Department of Biomedical Engineering

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Fpr1 Gene Increases Osteogenesis And Decreases Adipogenesis Of Adipose Derived Stem Cells	2/15/2021 6:00	Bone - Treatment and Therapeutics	Xinlin Yang	University of Virginia
Contributions Of Modeling- Vs. Remodeling-based Bone Formation To An Anabolic Window Upon Early Withdrawal From Parathyroid Hormone(pth) And Pth Related Peptide (pthrp) Treatments	2/15/2021 6:00	Bone - Treatment and Therapeutics	Wenzheng Wang	University of Pennsylvania
Age-associated Callus Senescent Cells Produce Tgf Beta1 That Inhibits Bone Fracture Healing In Aged Mice	2/15/2021 6:00	Bone - Treatment and Therapeutics	jiatong Liu	University of Rochester
BMI Increases Lumbar Intervertebral Disc Deformation Following A Treadmill Walking Stress Test	2/15/2021 6:00	Intervertebral Disc - Homeostasis and Development	James Coppock	Duke University
Involvement Of Atg5-dependent Autophagy In Maintaining Rat Intervertebral Disc Homeostasis	2/15/2021 6:00	Intervertebral Disc - Homeostasis and Development	Ryu Tsujimoto	Department of Orthopaedic Surgery, Kobe University Graduate School of Medicine
Macrophage Subtype Influences Intervertebral Disc Integrity And Inflammation	2/15/2021 6:00	Intervertebral Disc - Homeostasis and Development	Lauren Lisiewski	Columbia University
Embryonic Muscle Forces Are Required For Late-stage Development Of Murine Intervertebral Discs	2/15/2021 6:00	Intervertebral Disc - Homeostasis and Development	Aurélie Levillain	Imperial College London

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Consequence Of The Loss Of A 3-hydroxyproline Post-translational Modification On Type Ii Collagen Fibril Diameter	2/15/2021 6:00	Intervertebral Disc - Homeostasis and Development	Russell Fernandes	University of Washington
Canonical And Noncanonical Tgfβ Signaling Regulate Fibrous Tissue Differentiation In The Axial Skeleton	2/15/2021 6:00	Intervertebral Disc - Homeostasis and Development	Sade Clayton	University of Alabama at Birmingham
Lymphocyte-Dominated Adverse Local Tissue Reactions Are Associated With A Chemical Attack Of Preferential Corrosion Sites Of CoCrMo Heads In Mop THA	2/15/2021 6:00	Hip and Knee Arthroplasty - Implants	Deborah Hall	Rush University Medical Center
Comparison Of Asymptomatic And Symptomatic Altr In Patients With Head-neck Taper Corrosion	2/15/2021 6:00	Hip and Knee Arthroplasty - Implants	Kalain Workman	Department of Orthopedic Surgery, University of Pittsburgh Medical Center-Pinnacle
Effects Of Femoral Head Taper Out-of-roundness On Contact Mechanics Of Total Hip Head-neck Modular Junctions	2/15/2021 6:00	Hip and Knee Arthroplasty - Implants	Jonathan Gustafson	Rush University Medical Center
Variations In Dual Mobility Designs May Affect Implant Stability: A Comparison Of Jump Height	2/15/2021 6:00	Hip and Knee Arthroplasty - Implants	Ahmad Faizan	Stryker Orthopaedics

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Computational Investigations Of Edge Loading In Hip Replacement Bearings: Getting The Right Tool For The Job	2/15/2021 6:00	Hip and Knee Arthroplasty - Implants	Lee Etchels	University of Leeds
Novel Implant Wear Testing Boundary Conditions Derived From Moving Fluoroscopy And Instrumented Implant Measurements Lead To Altered Predictions Of Contact Mechanics Compared To Existing Standards	2/15/2021 6:00	Hip and Knee Arthroplasty - Implants	Michael Dreyer	ETH – Swiss Federal Institute of Technology Zürich
Targeted Inducible Depletion Of Scleraxis-lineage Cells During The Proliferative Healing Phasesignificantly Impairs Flexor Tendon Mechanical Integrity	2/15/2021 6:00	Tendon and Ligament - Tissue Engineering and Mechanobiology	Antonion Korcari	University of Rochester
Innate Tendon Environment Of MRL/MpJ Mice Contributes To Superior Healing Outcome In A Novel Tendon Transplant Model	2/15/2021 6:00	Tendon and Ligament - Tissue Engineering and Mechanobiology	Rebecca Bell	Cornell University
Mechanical Gating Of Tendon Fibrogenic Transcription In Systemic Sclerosis	2/15/2021 6:00	Tendon and Ligament - Tissue Engineering and Mechanobiology	Amro Hussien	Institute for Biomechanics, ETH Zurich

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Tissue-Engineered Augmentation Of A Rotator Cuff Tendon Using A Novel Bio-inductive Biocomposite Scaffold: A Preliminary Study In Sheep	2/15/2021 6:00	Tendon and Ligament - Tissue Engineering and Mechanobiology	William Walsh	University of New South Wales
Aging And Viscoelasticity Affect Multiscale Tendon Properties And Tendon Derived Cell Behavior	2/15/2021 6:00	Tendon and Ligament - Tissue Engineering and Mechanobiology	Benjamin Freedman	Harvard University
Effects Of Mechanical Strain On The Production Of Inflammatory And Degradative Biomarkers On Cytokine-stimulate Acl Tendon Graft Fibroblasts	2/15/2021 6:00	Tendon and Ligament - Tissue Engineering and Mechanobiology	Sebastian Cardona-Ramirez	University of Missouri Columbia
Evaluating The Role And Origin Of Pro-inflammatory Macrophage Subsets As Part Of The Cellular Immune Response During The Onset And Development Of Posttraumatic Osteoarthritis In Mice.	2/15/2021 6:00	Cartilage and Synovium - Different Pathways for the Development of Osteoarthritis	Patrick Haubruck	University of Sydney
Deficiency Of Core-fucosylated Glycan In Articular Cartilage Inhibits Recovery From Cartilage Damage And Promotes Cartilage Degeneration	2/15/2021 6:00	Cartilage and Synovium - Different Pathways for the Development of Osteoarthritis	Kentaro Homan	Hokkaido University Graduate School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Taxonomic Changes In The Microbiota Are Associated With Cartilage Damage In A Mouse Model Of Obesity And OA	2/15/2021 6:00	Cartilage and Synovium - Different Pathways for the Development of Osteoarthritis	Kelsey Collins	Washington University School of Medicine
Single Cell RNA Sequencing Highlights Unique Sub-populations Of Cells In The Knee Joints Of MRL/MpJ Superhealers	2/15/2021 6:00	Cartilage and Synovium - Different Pathways for the Development of Osteoarthritis	Jillian McCool	University of California Merced/LLNL
Synovial Fluid Mitochondrial DNA As A Biomarker After Naturally Occurring Intra-articular Fracture	2/15/2021 6:00	Cartilage and Synovium - Different Pathways for the Development of Osteoarthritis	Lindsay Seewald	Cornell University
Metabolomic Characterization Of The Effect Of High Fat Diet On Ampkα1 Knockout Mouse Knee Joints	2/15/2021 6:00	Cartilage and Synovium - Different Pathways for the Development of Osteoarthritis	Soumilee Chaudhuri	Montana State University
Comparison Of Planned And Post-operative Contact Point Location After Robot-assisted Uka	2/15/2021 12:00	Hip and Knee Arthroplasty - Kinematics and Computational Modeling	Milad Zarei	University of Pittsburgh
Predicting The Effect Of Tibial Polyethylene Thickness On Ligament And Contact Forces In Cruciate-Retaining Total Knee Arthroplasty	2/15/2021 12:00	Hip and Knee Arthroplasty - Kinematics and Computational Modeling	Periklis Tzanetis	Department of Biomechanical Engineering, University of Twente
Model Validation For Estimating Taper Microgroove Deformation During Total Hip Head-Neck Assembly	2/15/2021 12:00	Hip and Knee Arthroplasty - Kinematics and Computational Modeling	Michael Godoy	Rush University Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Impact Of Fixation Components On Primary Stability Of Cementless TKA During Walking	2/15/2021 12:00	Hip and Knee Arthroplasty - Kinematics and Computational Modeling	Wen Fan	Exactech Inc
Total Knee Arthroplasty Tibiofemoral Kinematics Of A Ball-and-socket Implant More Closely Mimic The Native Knee Than A Low-conforming Implant	2/15/2021 12:00	Hip and Knee Arthroplasty - Kinematics and Computational Modeling	Connor Delman, MD	University of California, Davis, Department of Orthopaedics
The Effect Retroverted Stems Have On Rom-to-impingement And Combined Anteversion	2/15/2021 12:00	Hip and Knee Arthroplasty - Kinematics and Computational Modeling	Thomas McCarthy	Stryker Orthopaedics
Immune Cell Profiles In Synovial Fluid After Anterior Cruciate Ligament And Meniscus Injuries	2/15/2021 12:00	Meniscus	Sophia Kim-Wang	Duke University
Kartogenin Induces Chondrogenesis In Cartilage Progenitor Cells And Attenuates Cell Hypertrophy In Marrow-derived Stromal Cells For Application In Meniscus Tissue Repair	2/15/2021 12:00	Meniscus	Daniel Yang	Brown University
Tethering Lubricin/PRG4 To Improve Healing Of Avascular Meniscus Tears	2/15/2021 12:00	Meniscus	Chang Lee	Columbia University
Characterizing The Metabolic Profile Of Meniscus From Osteoarthritic Knees	2/15/2021 12:00	Meniscus	Elizabeth Messenger	University of Missouri Columbia

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Type III Collagen Is Crucial To The Structure And Biomechanics Of Knee Cartilage And Meniscus During Aging	2/15/2021 12:00	Meniscus	Mingyue Fan	Drexel University
Biomechanical Evaluation Of The In-situ Stability Of A Novel Artificial Medial Meniscus Implant	2/15/2021 12:00	Meniscus	Matthias Sukopp	Institute of Orthopaedic Research and Biomechanics, Ulm University Medical Centre
Biomechanical Characterization Of Human Cervical Cartilage Endplate In Degenerate Disc	2/15/2021 12:00	Spine - Disease	Yongren Wu	Clemson University
The Impact Of Multifidus Muscle Injury On Lumbar Facet Joint Degeneration In The Rat	2/15/2021 12:00	Spine - Disease	Olena Klahsen	University of Guelph
Ligamentum Flavum Injury Promotes Degeneration Of The Intervertebral Disc In Vivo	2/15/2021 12:00	Spine - Disease	Louis Amorosa	Columbia University
Impact Of Vitamin E Deficiency And Exercise-induced Paraspinal Muscle Stress On Spine Growth And Misalignment	2/15/2021 12:00	Spine - Disease	Wai Kit Tam	The University of Hong Kong
Advanced Glycation End-Product Inhibitor Diminishes IVD Degeneration In Type 2 Diabetic Rats	2/15/2021 12:00	Spine - Disease	Juliane Glaeser	Cedars-Sinai Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Paraspinal Muscle Contractile Function Is Impaired In The ENT1 Deficient Mouse Model Of Progressive Spine Pathology	2/15/2021 12:00	Spine - Disease	Alex Noonan	University of Guelph
The Capsular Ligaments Stabilise The Hip Joint At Extreme Ranges Of Motion	2/15/2021 12:00	Hip - Function and Mechanics	Kabelan Karunaseelan	Imperial College London
Analysis Of Hip Instability Following Biomechanical Evaluation And Comparison Of Four Capsular Suture Techniques	2/15/2021 12:00	Hip - Function and Mechanics	Alex Brady	SPRI
Rotational Asymmetry During Deep Hip Flexion In Healthy Young Adults	2/15/2021 12:00	Hip - Function and Mechanics	Camille Johnson	Department of Orthopaedic Surgery, University of Pittsburgh
Sagittal Plane Ankle Kinetics Are Associated With Dynamic Sagittal Plane Hip Range Of Motion And Gait Efficiency In Older Adults With Hip Osteoarthritis	2/15/2021 12:00	Hip - Function and Mechanics	Kharma Foucher	University of Illinois at Chicago
Abnormal Frontal Plane Joint Loading Is Associated With Increased Cartilage Degeneration And Disease Progression In Individuals With Hip Osteoarthritis	2/15/2021 12:00	Hip - Function and Mechanics	Alyssa Bird	UCSF
Twenty Year Follow Up Of Pelvic Tilt In Supine, Standing, And Sitting Positions Before And After Total Hip Arthroplasty	2/15/2021 12:00	Hip - Function and Mechanics	Hidetoshi Hamada	Department of Orthopaedic Surgery, Osaka University Graduate School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Engineered Bone Marrow: A Novel In Vitro Model For Osteosarcoma	2/15/2021 12:00	Tumors - Treatment	Katherine Griffin	UC Davis
Metaphyseal Stem Tip Location Is A Risk Factor For Aseptic Loosening Of Cemented Distal Femoral Replacements	2/15/2021 12:00	Tumors - Treatment	Danielle Greig	University of California, Los Angeles
Time Dependent Effect Of Mithramycin A On Cell Cycle And Apoptosis In Ewing Sarcoma Cells	2/15/2021 12:00	Tumors - Treatment	Mei Yun Lin	Upstate Medical University
Short Term Infectious Complications With Transdermal Osseointegrated Implants	2/15/2021 12:00	Tumors - Treatment	Colin Harrington	Walter Reed National Military Medical Center
Zoledronic Acid Increases Doxorubicin Binding To Hydroxyapatite Causing Higher Cytotoxic Effect On Tumor Cells	2/15/2021 12:00	Tumors - Treatment	Yang Liu	Lund University
Prognostic Predictors Of Survival And Outcomes Of Pleomorphic Leiomyosarcoma	2/15/2021 12:00	Tumors - Treatment	Temitope Elutilo-Ayoola	Morehouse School of Medicine
Anterior Cruciate Ligament Relative Elongation Is Greater In Female Athletes During High Load Activities	2/15/2021 12:00	Knee - Ligament Reconstruction and Mechanics	Tom Gale	University of Pittsburgh

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Bilateral T₂ Asymmetry Analysis Detects Early Superficial And Later Deep Cartilage Changes Following ACL-reconstruction Surgery	2/15/2021 12:00	Knee - Ligament Reconstruction and Mechanics	Marianne Black	Stanford University
Healing Map: A Novel Approach To Track Anterior Cruciate Ligament Healing After Surgery	2/15/2021 12:00	Knee - Ligament Reconstruction and Mechanics	Ata Kiapour	Boston Children's Hospital
Anteromedialization Tibial Tubercle Osteotomy Improves Patellar Contact Forces In A 3D-Printed Model Of Patellofemoral Dysplasia	2/15/2021 12:00	Knee - Ligament Reconstruction and Mechanics	Joseph Lamplot	Emory University
Trochleoplasty To Treat Patellar Instability Improves Patellar Tracking And Increases Contact Pressures: Computational Simulation	2/15/2021 12:00	Knee - Ligament Reconstruction and Mechanics	John Elias	Cleveland Clinic Akron General
Can Clinical-Grade MRI-Based Methods Also Identify Combined Anatomical Factors That Predict ACL Injury Risk In Male And Female Athletes?	2/15/2021 12:00	Knee - Ligament Reconstruction and Mechanics	Melanie Beaulieu	University of Michigan
Clinical Characteristics Of Joint Pain, Function, And Biomarkers In A Population Of Ranchers	2/15/2021 18:00	Clinical Research - Omics, Biomarkers and Genetics	Matthew Thompson	Montana State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Osteoarthritis Transcriptome Shows Tissue-specificity And Unique Gene Alteration In Multiple Joint Samples	2/15/2021 18:00	Clinical Research - Omics, Biomarkers and Genetics	Emanuele Chisari	Rothman Orthopaedic Institute
Genetic Variants In PIEZO2 Associated With Young Adult Caucasian Musculoskeletal Phenotypes	2/15/2021 18:00	Clinical Research - Omics, Biomarkers and Genetics	Lauryn Brown	The George Washington University
Identification Of A Novel Genetic Marker For Risk Of Degenerative Rotator Cuff Disease Surgery In The Uk Biobank	2/15/2021 18:00	Clinical Research - Omics, Biomarkers and Genetics	Elizabeth Yanik	Washington University in St. Louis
Whole-Blood RNA Sequencing Reveals Differential Expression Of Inflammatory And Bone Markers Post-Implantation Of Percutaneous Osseointegrated Prostheses	2/15/2021 18:00	Clinical Research - Omics, Biomarkers and Genetics	Andrew Miller	University of Utah
Surgical Helmets Harbour Common Pathogens That Can Be Distributed To The Sterile Field	2/15/2021 18:00	Clinical Research - Omics, Biomarkers and Genetics	Chad Krueger	Rothman Orthopaedic Institute
Polyethylene Damage And Fretting Corrosion In Primary Vs. Revision Dual Mobility Total Hip Arthroplasty	2/15/2021 18:00	Hip and Knee Arthroplasty - Materials, Fixation and Wear	Hannah Spece	Drexel University
Progressive Loss Of Implant Fixation In A Preclinical Model Of Cemented Knee Replacement	2/15/2021 18:00	Hip and Knee Arthroplasty - Materials, Fixation and Wear	Kenneth Mann	SUNY Upstate Medical University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
In Vitro Effects Of Macrophages On Cocr Alloy With And Without Electrocautery Damage	2/15/2021 18:00	Hip and Knee Arthroplasty - Materials, Fixation and Wear	Kirsten Miller	University of Tennessee-Health Science Center
Characterization Of Chemical Alterations Within Pseudo-capsule Macrophages In Response To Metal Debris	2/15/2021 18:00	Hip and Knee Arthroplasty - Materials, Fixation and Wear	Songyun Liu	University of Illinois at Chicago; Rush University Medical Center
The Effects Of Bearing Surface Friction And Wear On Taper Fretting & Corrosion In Metal-On-Metal Hip Replacements	2/15/2021 18:00	Hip and Knee Arthroplasty - Materials, Fixation and Wear	Colin McCarty	The J. Vernon Luck, Sr., M.D. Orthopaedic Research Center at Orthopaedic Institute for Children
Simplified Mechanical Tests Can Simulate Physiological Mechanics Of A Fixation Construct For Periprosthetic Femoral Fractures	2/15/2021 18:00	Hip and Knee Arthroplasty - Materials, Fixation and Wear	Paul Rullkoetter	University of Denver
Tissue Engineered Autologous Cartilage-bone Grafts For Temporomandibular Joint Regeneration	2/15/2021 18:00	Cartilage and Synovium - Treatment and Therapeutics	Josephine Wu	Columbia University
Targeting Cartilage EGFR Pathway For Osteoarthritis Treatment	2/15/2021 18:00	Cartilage and Synovium - Treatment and Therapeutics	Tao Gui	University of Pennsylvania
Gene Therapy For Fat-1 Prevents Obesity-induced Cell Senescence Associated With Osteoarthritis In Mice	2/15/2021 18:00	Cartilage and Synovium - Treatment and Therapeutics	Natalia Harasymowicz	Washington University in St Louis

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Sustained Delivery Of PGRN-derivative Atsttrin Via E5C Hydrogel Protects Cartilage And Bone Quality In A Rabbit Model Of Post-traumatic Osteoarthritis	2/15/2021 18:00	Cartilage and Synovium - Treatment and Therapeutics	Aubryanna Hettinghouse	New York University School of Medicine
Targeting Synovial Lymphatic Function As A Novel Therapeutic Intervention For Osteoarthritis	2/15/2021 18:00	Cartilage and Synovium - Treatment and Therapeutics	Xi Lin	University of Rochester
Inflammatory Mediators Characterize Donor-Specific Response To Dexamethasone In Human Osteochondral Model Of PTOA	2/15/2021 18:00	Cartilage and Synovium - Treatment and Therapeutics	Rebecca Black	Massachusetts Institute of Technology
Cortical Bone Porosity Assessment At The Proximal Femur Using Mri: Association Between Porosity Index And Stiffness	2/15/2021 18:00	Bone - Mechanics	Shaowei Jia	Universtiy of Pennsylvania
Trabecular Morphology And Microdamage Accumulation In Cancellous Bone From Men With Type II Diabetes Mellitus	2/15/2021 18:00	Bone - Mechanics	Sara Sacher	Cornell University
Multiple Metrics Indicate That Deep Learning-Based Bone Segmentation Of CT Data Outperforms Other Methods	2/15/2021 18:00	Bone - Mechanics	Emilie Henning	University of Colorado Colorado Springs

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The Gut Microbiome Has Sexually Dimorphic Effects On Bone Cell Energy Metabolism, Remodeling, And Bone Quality.	2/15/2021 18:00	Bone - Mechanics	Ghazal Vahidi	Montana State University
Fatigue Crack Propagation And Fracture Toughness Of Cortical Bone Are Radiation Dose-Dependent	2/15/2021 18:00	Bone - Mechanics	Dylan Crocker	Case Western Reserve University
Progranulin Promotes Bone Fracture Healing In Mice With Type 2 Diabetes Mellitus	2/15/2021 18:00	Bone - Mechanics	Aubryanna Hettinghouse	New York University School of Medicine
Tibiofemoral Joint Kinematics Of Functional Movement Tasks In Normal And High BMI Individuals	2/15/2021 18:00	Knee - Biomarkers and Diagnostics	Sean Higinbotham	University of Denver
Femoral Bony Morphology Correlates With Knee Kinematics In Response To External Loads Following Lateral Extraarticular Tenodesis	2/15/2021 18:00	Knee - Biomarkers and Diagnostics	Sene Polamalu	University of Pittsburgh
In Vitro Biomechanical Assessment Of A Novel Posterolateral Corner Reconstruction Technique	2/15/2021 18:00	Knee - Biomarkers and Diagnostics	Ryan Willing	Western University
Clustering And Dimensional Reduction For Visualizing Knee Osteoarthritis Phenotypes: Data From The OAI	2/15/2021 18:00	Knee - Biomarkers and Diagnostics	ZeYu Huang	Duke University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Ratio Of Comp/il-8 In Synovial Fluid As A Biomarker For Osteoarthritis	2/15/2021 18:00	Knee - Biomarkers and Diagnostics	Krista Toler	CD Diagnostics
The Acute Biomarker Response To A Lateral Tilt Walking Paradigm In Cartilage Health And Disease	2/15/2021 18:00	Knee - Biomarkers and Diagnostics	Prakash Jayabalan	Shirley Ryan AbilityLab
Incorporation Of Cell-secreted Extracellular Matrix Into Msc Spheroids Promotes Endochondral Ossification For Repair Of Segmental Bone Defects	2/15/2021 18:00	Biomaterials - Bone Tissue Repair	Tomas Gonzalez Fernandez	University of California Davis
The Use Of Heparin/polycation Coacervate Sustain Release System To Compare The Bone Regeneration Capacities Of 5 Bmps In Critical Size Calvarial Bone Defect Model	2/15/2021 18:00	Biomaterials - Bone Tissue Repair	Xueqin Gao	Steadman Philippon Research Institute
A Bioactive Synthetic Membrane Improves Bone Healing In A Preclinical Nonunion Model	2/15/2021 18:00	Biomaterials - Bone Tissue Repair	Brett Salazar	Stanford University
Modulating Macrophage-Stem Cell Crosstalk And Bone Formation Using Microribbon Scaffolds With Tunable Compositions	2/15/2021 18:00	Biomaterials - Bone Tissue Repair	Ni Su	Stanford University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Multifunctional 3d Printed Bone Tissue Engineering Scaffold For Osteosarcoma Resection Defect Repair	2/15/2021 18:00	Biomaterials - Bone Tissue Repair	Susmita Bose	Washington State University
Pre-vascularizing Tissue Engineered Bone Constructs To Enhance Their Repairing Potential	2/15/2021 18:00	Biomaterials - Bone Tissue Repair	Xiurui Zhang	The University of Pittsburgh
Machine Learning Pipeline For Automated Histomorphometry Of Murine Musculoskeletal Tissue	2/16/2021 6:00	Imaging - Soft Tissue Imaging	Richard Bell	Hospital for Special Surgery
Deep Learning-based Automated Segmentation Of The Human Cartilage Endplate For T2* Measurement With UTE MRI	2/16/2021 6:00	Imaging - Soft Tissue Imaging	Linshanshan Wang	University of California, San Francisco
MR T1ρ And T2 Of Lower Limb Muscles After Acute Anterior Cruciate Ligament Injuries And Reconstruction	2/16/2021 6:00	Imaging - Soft Tissue Imaging	Dongxing Xie	Department of Biomedical Engineering, Lerner Research Institute; Program of Advanced Musculoskeletal Imaging (PAMI), Cleveland Clinic
Quantitative T2 And T1ρ Mapping Detect Early Ischemic Injury To The Epiphyseal Cartilage Of The Femoral Head At 3T MRI: An In Vivo Piglet Model Study	2/16/2021 6:00	Imaging - Soft Tissue Imaging	Casey Johnson	University of Minnesota
Diffusion MRI Of THAs For The Classification Of Synovial Reactions	2/16/2021 6:00	Imaging - Soft Tissue Imaging	Ek Tan	Hospital for Special Surgery

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Extending In Vivo Characterization Of Tendon Structure-function Using Multiexponential Analysis Of UTE MRI And Shear Wave Elastography Ultrasound	2/16/2021 6:00	Imaging - Soft Tissue Imaging	David Reiter	Emory University
Assessment Of Superficial And Deep Muscle Activity In The Upper Extremity Using Ultrasound Shear Wave Elastography	2/16/2021 6:00	Shoulder and Elbow - Biomechanics and Experimental Considerations	Sarah Barron	University of Florida
Quantifying The Components Of Scapular And Humeral Soft-tissue Artefact	2/16/2021 6:00	Shoulder and Elbow - Biomechanics and Experimental Considerations	Klevis Aliaj	University of Utah
Abduction Force Transmission Through The Rotator Cable	2/16/2021 6:00	Shoulder and Elbow - Biomechanics and Experimental Considerations	Ryan Blake	University of Pittsburgh
Early Joint Use Preserves Range-of-Motion In A Rat Model Of Post-Traumatic Elbow Contracture	2/16/2021 6:00	Shoulder and Elbow - Biomechanics and Experimental Considerations	Alex Reiter	Washington University in St. Louis
Outcomes Of Accelerated Physical Therapy In Patients With Transtendinous Rotator Cuff Repair	2/16/2021 6:00	Shoulder and Elbow - Biomechanics and Experimental Considerations	Michael Kucharik	Massachusetts General Hospital
Kinematic Changes Are Associated With Improved Outcomes Following Superior Capsular Reconstruction	2/16/2021 6:00	Shoulder and Elbow - Biomechanics and Experimental Considerations	Clarissa LeVasseur	University of Pittsburgh
A Machine Learning Approach To Identify Stable From Unstable Knee Joints During Walking After TKA	2/16/2021 6:00	Hip and Knee Arthroplasty - Robotics and AI	Erica Ramirez	Rush University Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Resection Accuracy Improved Using A Novel Concept For Robotic-assisted Total Knee Arthroplasty	2/16/2021 6:00	Hip and Knee Arthroplasty - Robotics and AI	Gary Doan	Center of Orthopaedic Biomechanics, University of Denver
Automated Risk Stratification Of Osteoarthritis Development Using Unsupervised Clustering Algorithm - Long Term Cohort Study Of Rochester Epidemiology Project	2/16/2021 6:00	Hip and Knee Arthroplasty - Robotics and AI	Sunho Ko	Seoul National University
Natural Language Processing With Deep Learning For Medical Adverse Event Detection From Free-text Medical Narratives: A Case Study Of Detecting Total Hip Replacement Dislocation	2/16/2021 6:00	Hip and Knee Arthroplasty - Robotics and AI	Alireza Borjali	Harvard Medical School
Utilizing Artificial Neural Networks For Identifying Total Hip And Knee Arthroplasty Implant Design From Plain Radiographs	2/16/2021 6:00	Hip and Knee Arthroplasty - Robotics and AI	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Tibial Torsional Strength After Placement Of Total Knee Arthroplasty Navigation Pin Holes In The Proximal Diaphysis	2/16/2021 6:00	Hip and Knee Arthroplasty - Robotics and AI	Grant McChesney	University of Texas Medical Branch

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Performance Of Deep Machine Learning In Detecting Subtle Lisfranc Joint Instability Using Weightbearing Radiographs And Non-weightbearing CT Scans	2/16/2021 6:00	Foot and Ankle - Diagnosis, Imaging and Disorders	Soheil Ashkani-Esfahani	Massachusetts General Hospital, Harvard Medical School
Local Injections Of 3s-hmgb1 Enhance Healing Of Achilles Enthesis Injury In Rats	2/16/2021 6:00	Foot and Ankle - Diagnosis, Imaging and Disorders	Feng Li	University of Pittsburgh
Effect Of Simulated Bone Resorption On The Biomechanical Performance Of Intramedullary Devices For Foot And Ankle Arthrodesis	2/16/2021 6:00	Foot and Ankle - Diagnosis, Imaging and Disorders	David Safranski	MedShape, Inc.
Next Generation Sequencing For Pathogen Identification In Infected Foot Ulcers	2/16/2021 6:00	Foot and Ankle - Diagnosis, Imaging and Disorders	Irvin Oh	University of Rochester Medical Center
The 3D Printed Total Talus Replacement - A Novel Treatment Option For Talar Avascular Necrosis	2/16/2021 6:00	Foot and Ankle - Diagnosis, Imaging and Disorders	Akhil Sharma	Duke University Medical Center
Biomechanical Correlation Between Trunk And Foot Kinematics During Golf Swing Movement Before And After Fatigue	2/16/2021 6:00	Foot and Ankle - Diagnosis, Imaging and Disorders	Satoshi Hakukawa	Orthopedic Surgery, Graduate School of Medicine, Keio University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
3D Printed Annulus Fibrosus Tissue Engineering Scaffolds With Multiscale, Uniaxial Surface Topographies That Promote The Spatial Control Of Cell Density And Alignment	2/16/2021 6:00	Intervertebral Disc - Degeneration and Regeneration	Andrea Vernengo	AO Research Institute
The Combined Role Of Tenomodulin And Chondromodulin-1 On Intervertebral Disc Biomechanical Function	2/16/2021 6:00	Intervertebral Disc - Degeneration and Regeneration	Theodor Di Pauli von Treuheim	Mount Sinai School of Medicine
Investigating The Role Of Peroxisome Proliferator Activated Receptor Delta In Obesity-associated Intervertebral Disc Degeneration And Back Pain	2/16/2021 6:00	Intervertebral Disc - Degeneration and Regeneration	Geoffrey Kerr	The University of Western Ontario
Hydroxyapatite Coating Of Porous Polycaprolactone To Enhance Integration Of A Tissue-Engineered Total Disc Replacement	2/16/2021 6:00	Intervertebral Disc - Degeneration and Regeneration	Sarah Gullbrand	University of Pennsylvania
Non-viral Reprogramming Of Degenerate Nucleus Pulposus Cells With FOXF1 Loaded Engineered Extracellular Vesicles In An In-vivo Mouse Model Of Discogenic Back Pain	2/16/2021 6:00	Intervertebral Disc - Degeneration and Regeneration	Shirley (Nina) Tang	The Ohio State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Injectable Hydrogel For Disc Regeneration Study Of Injectablitiy And Mechanical Properties In Whole Human Intervertebral Discs	2/16/2021 6:00	Intervertebral Disc - Degeneration and Regeneration	Christine Le Maitre	Sheffield Hallam University
Defining The Activation Of Adult Scleraxis-lineage Cells During Tendon Healing By Combining Lineage Tracing And Spatial Transcriptomics	2/16/2021 6:00	Late Breaking - Biological and Physical Mechanisms	Alayna Loiselle	University of Rochester Medical Center
Targeted Ptpn11 Deletion In Mice Reveals Shp2'S Essential Role In Osteoblast Differentiation And Skeletal Homeostasis	2/16/2021 6:00	Late Breaking - Biological and Physical Mechanisms	JIAHUI Huang	WARREN ALPERT MEDICAL SCHOOL OF BROWN UNIVERSITY
Collagen V Knockdown In Mature Murine Tendons Causes Sex-Dependent Expression Changes	2/16/2021 6:00	Late Breaking - Biological and Physical Mechanisms	Ryan Leiphart	University of Pennsylvania
The Mechanical Disadvantage Of Dysplastic Hips	2/16/2021 6:00	Late Breaking - Biological and Physical Mechanisms	Michael Harris	Washington University School of Medicine
Crispr Epigenome Editing Of Tnfr1 Shifts Tnf-alpha Signaling To Prevent Disc Height Loss Inin Vivorat Model Of Disc Degeneration	2/16/2021 6:00	Late Breaking - Biological and Physical Mechanisms	Joshua Stover	University of Utah
Rapamycin And Metformin Cotreatment Exacerbates Age-related Osteoarthritis Severity In The Dunkin-hartley Guinea Pig.	2/16/2021 6:00	Late Breaking - Biological and Physical Mechanisms	Dennis Minton	University of Wisconsin-Madison

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Bionic Layer-by-layer Drug-released Nano-matrix For Mesenchymal Stem Cells Chondrogenic Differentiation Promotion And Chondrocytes Hypertrophy Prevention	2/16/2021 12:00	Biomaterials - Soft Tissue Engineering and Repair	Libo Zhou	University of Connecticut
Hydrogel-embedded Plga Microspheres For The Delivery Of Hmsc-derived Exosomes For Intervertebral Disc Repair	2/16/2021 12:00	Biomaterials - Soft Tissue Engineering and Repair	Tyler DiStefano	Icahn School of Medicine at Mount Sinai
Gradients In Media Recapitulate Native Collagen Fiber Organization Within Tissue Engineered Enthesis	2/16/2021 12:00	Biomaterials - Soft Tissue Engineering and Repair	Jongkil Kim	Cornell University
Mapping The Distribution Of Elastin And Collagen In The Interosseous Membrane	2/16/2021 12:00	Biomaterials - Soft Tissue Engineering and Repair	Melissa Knothe Tate	University of New South Wales
Locally Injectable (4-Aminopyridine)-PLGA-PEG Enhances Functional Recovery After Traumatic Peripheral Nerve Injury	2/16/2021 12:00	Biomaterials - Soft Tissue Engineering and Repair	John Elfar	The Pennsylvania State University College of Medicine
Collagen-Fibrin Blends Promote Differentiation Of Myoblasts In Engineered 3d Model Of Skeletal Muscle Tissue	2/16/2021 12:00	Biomaterials - Soft Tissue Engineering and Repair	Jorge Mojica Santiago, PhD	University of Florida
Osteocyte Ca²⁺ Responses To In Vivo Mechanical Loading In Mice Is Sex-dependent	2/16/2021 12:00	Bone - Mechanobiology	James Boorman-Padgett	City College of New York

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Loss Of Ift88/Primary Cilia In Leptin Receptor Expressing Stromal Cells Selectively Attenuates Loading-induced Endosteal Bone Formation	2/16/2021 12:00	Bone - Mechanobiology	David Hoey	University of Dublin, Trinity College
Sptbn1 Deficiency Blunts Adaptation In Vivo And Alters Osteocyte Plasma Membrane Dynamics And Calcium Wave Propagation In Vitro Following Formation Of Plasma Membrane Disruptions (PMD)	2/16/2021 12:00	Bone - Mechanobiology	Mackenzie Hagan	Augusta University
Maternal Bone Adaptation To Mechanical Loading During Pregnancy, Lactation, And Post-weaning Recovery	2/16/2021 12:00	Bone - Mechanobiology	Yihan Li	University of Pennsylvania
Vegfa From Osteoblasts Is Not Required For Lamellar Bone Formation Following Tibial Compression	2/16/2021 12:00	Bone - Mechanobiology	Jennifer McKenzie	Washington University in St. Louis
Effect Of Loading On Irisin Signaling In Healthy And Diabetic Mice	2/16/2021 12:00	Bone - Mechanobiology	Mia Thi	Albert Einstein College of Medicine
Effect Of Chondrocyte Deficiency Of ATP-citrate Lyase (acly) In Obesity-induced Osteoarthritis In Mice	2/16/2021 12:00	Cartilage and Synovium - Diseases and Disorders	Ru Liu-Bryan	VAMC/UCSD

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Fat Implantation In Lipodystrophic Mice Restores Susceptibility To Joint Injury And OA Independent Of Body Weight	2/16/2021 12:00	Cartilage and Synovium - Diseases and Disorders	Kelsey Collins	Washington University St Louis
TNFR2/14-3-3ε Signaling Complex Instructs Macrophage Plasticity In Inflammatory Arthritis	2/16/2021 12:00	Cartilage and Synovium - Diseases and Disorders	Wenyu Fu	New York University Medical Center
Defining Articular Chondrocyte Heterogeneity And Injury-induced Molecular Responses At Single Cell Level	2/16/2021 12:00	Cartilage and Synovium - Diseases and Disorders	Aimy Sebastian	Lawrence Livermore National Laboratories
T Cells Mediate Cartilage Degradation And Osteophyte Formation In Load-induced Osteoarthritis	2/16/2021 12:00	Cartilage and Synovium - Diseases and Disorders	Tibra Wheeler	Cornell University
Influences Of Patient Medication Use On Osteoarthritic Chondrocyte Metabolism	2/16/2021 12:00	Cartilage and Synovium - Diseases and Disorders	Anna Sullentrup	University of Missouri Columbia
Spaceflight And Reduced Weight-bearing On Earth Damages Knee Articular Cartilage And Menisci	2/16/2021 12:00	Knee - Osteoarthritis and Therapeutics	Jeffrey Willey	Wake Forest School of Medicine
Metabolic Responses Of Osteoarthritic Chondrocytes To Infrapatellar Fat Pad Stimulation During In Vitro Culture	2/16/2021 12:00	Knee - Osteoarthritis and Therapeutics	Shelby Salisbury	University of Missouri Columbia

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Amniotic Suspension Allograft Injection Improves Pain And Inflammation In Rat Osteoarthritis Models	2/16/2021 12:00	Knee - Osteoarthritis and Therapeutics	Kelly Kimmerling	Organogenesis
Markers Of Pain In Mild And Severe Post-traumatic Osteoarthritis Murine Models	2/16/2021 12:00	Knee - Osteoarthritis and Therapeutics	Brett Croen	Hospital for Special Surgery
Notch Signaling Is Activated In Knee-innervating Dorsal Root Ganglia In An Osteoarthritis Mouse Model	2/16/2021 12:00	Knee - Osteoarthritis and Therapeutics	Lai Wang	Rush University Medical Center
Antibiotic Treatment Prior To Injury Improves Post-Traumatic Osteoarthritis Phenotype In Str/ort Mice	2/16/2021 12:00	Knee - Osteoarthritis and Therapeutics	Melanie Mendez	Lawrence Livermore National Laboratory
Crispri And Crispra Engineered Bone Gradients For Application To Ligament/tendon Tissue Engineering	2/16/2021 12:00	Late Breaking - Biologic Therapies	Jacob Weston	University of Utah
High Dose Enzyme Replacement Therapy Attenuates Joint Disease Progression And Preserves Mobility In Mucopolysaccharidosis VII Dogs	2/16/2021 12:00	Late Breaking - Biologic Therapies	Rahul Gawri	McGill University
Chitosan-PRP Implants Improve Surgical Repair Of Rotator Cuff Tears In A Sheep Model	2/16/2021 12:00	Late Breaking - Biologic Therapies	Anik Chevrier	Polytechnique Montreal

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Fate Of Mechano-sensitive Microcapsules After Intra-articular Injection In A Large Animal	2/16/2021 12:00	Late Breaking - Biologic Therapies	Hannah Zlotnick	University of Pennsylvania
Genome Engineered Muscle Derived Stem Cells For Autoregulated Anti-inflammatory And Anti-fibrotic Activity	2/16/2021 12:00	Late Breaking - Biologic Therapies	Lara Pferdehirt	Washington University in St. Louis
Evaluation Of O-vanillin & Rg-7112 For Lower Back Pain In Sparc-null Mice	2/16/2021 12:00	Late Breaking - Biologic Therapies	Matthew Mannarino	McGill university
Sustained Release Of Simvastatin From Bioprinted Triple Networked Hydrogels Composed Of Modified Chitosan And PLA-PEG Micelles	2/13/2021 6:00	Biomaterials-Controlled Release	Tomoko Fujiwara	University of Memphis
Ultrasound-triggered Release From Novel Polymer-sealed Spinal Device	2/13/2021 6:00	Biomaterials-Controlled Release	Lauren Delaney	Thomas Jefferson University
Local Antibiotic Delivery Via Calcium Sulfate For Orthopaedic Infections	2/13/2021 6:00	Biomaterials-Controlled Release	Daniel Driscoll	Hospital for Special Surgery
Protective Effect Of Quercetin-capped-selenium Nanoparticles Against Bone Loss	2/13/2021 6:00	Biomaterials-Controlled Release	Ashish Sharma	Hallym University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
An Analysis Of The Chemical And Physical Properties Of Polyetheretherketone (PEEK) Implants Coated With A Silver Carboxylate Titanium-Dioxide Polydimethylsiloxane (TiO₂-PDMS) Antimicrobial Matrix	2/13/2021 6:00	Biomaterials-Controlled Release	Dioscaris Garcia	Lifespan
Ibuprofen-loaded Uhmwpe For Orthopaedics Applications	2/13/2021 6:00	Biomaterials-Controlled Release	Izabelle Gindri	Universidade Federal de Santa Catarina
Vancomycin Elution From Porous Peek	2/13/2021 6:00	Biomaterials-Controlled Release	Jaynie Criscione	Massachusetts General Hospital
Antitumor Effects Of Pristimerin On Soft Tissue Sarcoma Cells In Vitro And In Vivo	2/13/2021 6:00	Biomaterials-Controlled Release	Hayashi Daichi	Kyoto prefectural university of Medicine
Microparticle Development For The Sustained-release Of A Small-molecule NF-κB Inhibitor In The Treatment Of Traumatic Knee Joint Injury	2/13/2021 6:00	Biomaterials-Controlled Release	Ian Berke	Washington University in St Louis
Evaluation Of Alginate-based Bioinks For 3D Bioprinting, Mesenchymal Stromal Cell Osteogenesis, And The 3D Bioprinting Of Patient-specific Bone Grafts	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Tomas Gonzalez Fernandez	University of California Davis
Effects Of Alloy Microstructure On Material Loss In Severely Damaged CoCrMo THA Femoral Head Tapers	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Stephanie McCarthy	Rush University Graduate College

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Early Failure Of A Polyvinyl Alcohol Hydrogel Implant With Osteolysis And Adverse Local Tissue Reaction In An Ovine Model Of Cartilage Repair	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Jacqueline Chevalier	Cornell University
Grafting Of Calcium Phosphate To 3D Printed Peek Using UV Functionalization	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Paul DeSantis	Drexel University
Decellularized Tendon Matrix (DTM) Maintains Native Tendon Bioactivity And Promotes Cell Proliferation	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Kelsey O'Hara	Steadman Philippon Research Institute
Characterization Of Antioxidant Containing UHMWPE (AOX™) Tibial Inserts After Implantation Up To 5 Years	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Mahdieh Aghazadeh	DePuy Synthes
Combination Effect Of Porosity And Nano-hydroxyapatite Coating On Biological Fixation Of Highly Porous Implants	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Ryota Watanabe	Teijin Nakashima Medical Co., Ltd
Differential Effects Of Surgical Neurectomy And Botox-induced Muscle Paralysis On Titanium Implant Osseointegration	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Jingyao Deng	virginia commonwealth university

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Ionic Cobalt (Co²⁺) Is Not Preferentially Genotoxic To Monocytes/macrophages When Compared To Hexavalent Chromium (Cr⁶⁺): Implications For Cobalt Implant Debris	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Lauryn Samelko	Rush University Medical Center
Compared Analysis Of Cortical And Trabecular Bone Facing A Spheric Shoulder Interposition Implant With Micro-ct In Sheep : Differences Between Pyrolytic Carbon And Chromium Cobalt Alloys	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Massardier Etienne	LAMCOS
Impacts Of Bone Marrow Stromal Cell Conditioned Medium On Tenocyte Growth Within Porous Titanium Scaffolds With Defined Pore Sizes	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Therese Bou-Akl	Ascension Providence Hospital
In Vivo Assessment Of AMP2, A Novel Ceramic-Binding Tethered BMP-2 In A Sheep Critical-Sized Tibial Defect Model	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Luis Alvarez	Theradaptive, Inc.

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Metallic Wear Debris In Megaprostheses: Scanning Electron Microscopic And Energy Dispersive Spectroscopy Particle Analysis	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Timothy Damron	Upstate Medical University
Product Development Engineer	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Mahemaa Rajasekaran	MicroPort Orthopedics Inc
Accelerated Fretting-corrosion Damage At Hip Modular Junction Triggered By Cocrmo Particle Challenged Macrophage Media	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Mathew Mathew	UIC School of Medicine
Safety Evaluation Of Hydroxyapatite-Demineralized Bone Matrix Composite Scaffold For Spinal Fusion	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Elianna Fred	Northwestern University
Development And Characterization Of An Automated Hydrogel Bioink Preparation Device	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Tara Shelby	Stanford
Biomechanical Comparison Of Fibertape Cerclage Versus Traditional Metallic Braided Cables	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	MATIN LENDHEY	Arthrex Inc.,

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Investigating A Tendon Extracellular Matrix-based, Mechanically-robust Scaffold For Functional Tendon Repair	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Shuting HUANG	Institute for Tissue Engineering and Regenerative Medicine, and School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong
The Effects Of Diabetes On Implant Surfaces: A Retrieval Study	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Alexandra Arteaga	University of Texas at Dallas
Metabolic Reprogramming Underlies Inflammation And Fibrosis To Polylactide-based Prosthetics.	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Chima Maduka	Michigan State University
Efficacy Of A Hyperelastic 3D-printed Hydroxyapatite-Demineralized Bone Matrix Scaffold In A Rat Spine Fusion Model	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Eileen Phan	Northwestern University
Effects Of Elastic Plate Of Low Young's Modulus Ti-nb-sn-alloy On Bone Healing	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Kentaro Ito	Department of Orthopaedic Surgery, Tohoku University Graduate School of Medicine
Effect Of Microstructure On The Corrosion Behavior Of Ti-6Al-4V Orthopedic Implants	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Mozart Neto	Rush University Medical Center
Effect Of Cutting Flute On Dental Implant Insertion Process With Explicit Finite Element Analysis	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Baixuan Yang	Queen's University
Angiogenic Properties Are Preserved In Aseptically Processed Moldable Cellular Bone Allografts	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Adiba Chowdhury	MTF Biologics

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The Antibacterial Activity Of Anodized Biocompatible TiNbSn Alloy Prepared In Sodium Tartrate	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Hiroaki Kurishima	Department of Orthopaedics, Tohoku University Gradutate School of Medicine
RTT Cancellous Bone Ingrowth And Pore Morphometrics	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Weidong Tong	DePuy Synthes
The Effect Of Si3n4Coated Carbon Fiber Reinforcedpolyetheretherketone Composites On Pull Out Strength After In Vivo Implantation	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Hideaki Enami	Department of Orthopaedic Medical Engineering, Osaka University Graduate School of Medicine
Testing The Mechanical Fixation Of Dental Implants	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Baixuan Yang	Queen's University
Synthesis Of A GO/PEDOT-DMSO Electroactive Nanocomposite For Bone Engineering Application	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Adil Akkouch	WMU Homer Stryker M.D. School of Medicine
The Influence Of The Surface Matching Mismatch Of Focal Knee Articular Prosthetic On The Knee Joint Using Finite-element Analysis	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Yong-Gon Koh	Yonsei Sarang Hospital
Comparison Of Head Center Coverage In Various Femoral Stem Designs Using A Large Ct Database	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Ahmad Faizan	Stryker Orthopaedics

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Potential Of Naturally Sourced Carvacrol From Oregano As A Viable Infection Prevention Compound In Calcium Phosphate Bone Scaffolds	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Ashley Vu	Washington State University
Electrochemical Impedance Spectroscopy As A Tool For The Detection Of Periprosthetic Infection	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Ross Cole	University at Buffalo
Comparison Of Contemporary HXLPE, Ceramic On Ceramic, And Metal On Metal Wear Particles For THA	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Jaclyn Schachtner	Exponent
Titanium Surface Roughness May Increase Bacterial Adherence On Orthopedic Implants	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Jillian Glasser	University Orthopedics, Inc.
Polydopamine-Induced Nano-Hydroxyapatite Coating of 3D Printed Poly (Lactic-Co-Glycolic Acid) Scaffolds for Bone Tissue Engineering	2/13/2021 6:00	Biomaterials-Orthopaedic Implant Materials	Weitong Chen	Mississippi State University
Optimization, Feasibility And Cellular Interactions Of A Human Imscs-laden Photocurable Hydrogel For Improved Durability Of The Skin/implant Interface	2/13/2021 6:00	Biomaterials-Repair/Replacement of Hard Tissues	Isha Mutreja	Minnesota Dental Research Center for Biomaterials and Biomechanics

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Repair Of Rat Calvaria Defect With Strontium (sr²⁺)-doped Polymeric Brushite Cement	2/13/2021 6:00	Biomaterials-Repair/Replacement of Hard Tissues	Therese Bou-Akl	Ascension Providence Hospital
Characterization Human Osteoblast Cells On 3D Printed Titanium: Development Of An In Vitro Bioassay System	2/13/2021 6:00	Biomaterials-Repair/Replacement of Hard Tissues	Timothy Norman	Cedarville University
M2 Macrophage Upregulation By Calcium Phosphate With Submicron Topography Promotes Angiogenesis And Osteogenic Differentiation In Stem Cells In Vitro	2/13/2021 6:00	Biomaterials-Repair/Replacement of Hard Tissues	Lukas van Dijk	Kuros Biosciences
Transcriptome And Proteome Profiling Of Trinity Elite™ Allografts Supports Bone Healing Potential	2/13/2021 6:00	Biomaterials-Repair/Replacement of Hard Tissues	Yadav Wagley	University of Michigan
Patient-specific Cutting Guides And 3d-printed Technology For Intercalary Long Bone Resection And Allograft Reconstruction: Our Experience In The Resection Of Extremity Sarcoma Of Bone	2/13/2021 6:00	Biomaterials-Repair/Replacement of Hard Tissues	Charles Gusho	Rush University Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Cocktail Of Tnf-α, Il-4, Il-6, And Il-17f Affects Osteogenic Differentiation Of Human Adipose Stem Cells Cultured Under Hypoxia	2/13/2021 6:00	Biomaterials-Repair/Replacement of Hard Tissues	Astrid Bakker	ACTA
Cryopreservation And Cell Sorting Affect Feline Adipose-derived Multipotent Stromal Cell In Vitro Behavior	2/13/2021 6:00	Biomaterials-Repair/Replacement of Hard Tissues	Xiao Niu	LSU
Heterotopic Bone Formation By Calcium Phosphate With Submicron Topography Following Intramuscular Implantation In Mice	2/13/2021 6:00	Biomaterials-Repair/Replacement of Hard Tissues	HUIPIN YUAN	Kuros Biosciences BV
Interactive Effects Of Hypoxia And Substrate Stiffness On Msc Behavior During In Vitro Expansion	2/13/2021 6:00	Biomaterials-Repair/Replacement of Hard Tissues	Dong Hwa Kim	University of Pennsylvania
Sulfated Hydrogels To Prolong Localized Availability Of The Stromal Cell Secretome	2/13/2021 6:00	Biomaterials-Repair/Replacement of Soft Tissues	Marissa Gionet-Gonzales	UC Davis
Human Bone Marrow- And Adipose-derived Cell Preparations Yield Different Stem/Stromal Cells	2/13/2021 6:00	Biomaterials-Repair/Replacement of Soft Tissues	Severin Ruoss	University of California San Diego
Stabilization Of Damaged Cartilage Via Hydrogel-mediated Reinforcement And Sealing	2/13/2021 6:00	Biomaterials-Repair/Replacement of Soft Tissues	Jay Patel	University of Pennsylvania

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Soft Biomaterial Inhibits Pro-inflammatory Cytokine Production & Tissue Degeneration In Intervertebral Disc, & Suppresses Pain-related Behavior	2/13/2021 6:00	Biomaterials-Repair/Replacement of Soft Tissues	Katsuro Ura	Hokkaido University
Effects Of PEPOn Rotator Cuff Tendon-bone Healing In A Rat Model	2/13/2021 6:00	Biomaterials-Repair/Replacement of Soft Tissues	Ye Ren	Mayo Clinic
The Early Effects Of Scaffold-free Constructs Of Adipose Tissue-derived Mesenchymal Stem Cells On Tendon-bone Healing After Anterior Cruciate Ligament Reconstruction In A Rabbit Model	2/13/2021 6:00	Biomaterials-Repair/Replacement of Soft Tissues	Kotaro Higa	Department of Orthopedic Surgery, Graduate School of Medicine, University of the Ryukyus
The Heterogeneity Of Bone Marrow Mesenchymal Stem/Stromal Cells In Mouse Is Not Present In Clinical Cell Preparations	2/13/2021 6:00	Biomaterials-Repair/Replacement of Soft Tissues	Severin Ruoss	University of California San Diego
Exosomes Derived From Mesenchymal Stem Cells Regenerate Meniscus And Enhance Endogenous Cells Proliferation And Migration	2/13/2021 6:00	Biomaterials-Repair/Replacement of Soft Tissues	Kazumasa Kawata	Tokyo Medical and Dental University
Characterization Of A Novel Bio-inductive Biocomposite Scaffold For Tendon And Ligament Healing	2/13/2021 6:00	Biomaterials-Scaffolds	Andrew Carter	Accent Biomedical

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Enhancing Bone Regeneration Through Immunomodulation Using MSC-Membrane Coated Microribbon Scaffolds	2/13/2021 6:00	Biomaterials-Scaffolds	Ni Su	Stanford University
Controlled Aggregation Of MSC Spheroids Using Pore-Forming Gradient Hydrogels To Promote Chondrogenesis	2/13/2021 6:00	Biomaterials-Scaffolds	Jeremy Lowen	UC Davis
Polymer Ceramic Biomimetic Scaffolds Support Osteoblastic Differentiation Of Stem Cells In Vitro	2/13/2021 6:00	Biomaterials-Scaffolds	David Margolis	University of Arizona
3D Printing Of Functional Starch-hydroxyapatite Scaffolds With Improved Mechanical And Biological Properties	2/13/2021 6:00	Biomaterials-Scaffolds	Arjak Bhattacharjee	Washington State University
Osteogenic Potential Of A Periosteum-mimicking 3D Printed Construct	2/13/2021 6:00	Biomaterials-Scaffolds	Camille Pinpin	Feinstein Institutes for Medical Research, Northwell Health
3D Printable PCL Scaffolds Containing Amorphous Calcium Phosphate Nanoparticles For Infected Bone Repair	2/13/2021 6:00	Biomaterials-Scaffolds	Ming Yan	University of Rochester
Enhancing Toughness And Strength Of Additively Manufactured Bioceramic Scaffolds Through Combinations Of Microstructure And Material	2/13/2021 6:00	Biomaterials-Scaffolds	Elise Morgan	BOSTON UNIVERSITY

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The Chondroinductive Properties Of A Nanofiber Vs. Collagen Scaffold	2/13/2021 6:00	Biomaterials-Scaffolds	Dan Li	Feinstein Institute for Medical Research
Macrophages Protect Against Bone Loss From Inflammatory Stimuli In A Microjoint Bioreactor 3d Model	2/13/2021 6:00	Biomaterials-Scaffolds	Claire Rhee	Stanford University
Optimization Of 3D Printability Of Polycaprolactone-Calcium Phosphate Scaffolds For Bone Repair	2/13/2021 6:00	Biomaterials-Scaffolds	Ming Yan	University of Rochester
Modeling Articular Cartilage Post-traumatic Changes Using Human Cell-based Hydrogel Constructs	2/13/2021 6:00	Biomaterials-Scaffolds	Chunrong He	Center for Cellular and Molecular engineering
Bonding Strength Of PLGA/PVA Nanofiber Coating To The Titanium Pins With And Without Surface Fabrication	2/13/2021 6:00	Biomaterials-Scaffolds	Therese Bou-Akl	Ascension Providence Hospital
Effects Of Macrophage Phenotype On Osteogenic Differentiation Of Mscs In A 3d Pro-inflammatory In Vitro Microenvironment	2/13/2021 6:00	Biomaterials-Scaffolds	Qi Gao	Stanford University
High Strength Composite Polymer-Ceramic Biomimetic Scaffolds For Bone Tissue Engineering	2/13/2021 6:00	Biomaterials-Scaffolds	David Margolis	University of Arizona

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Hybrid Bioprinting Via Integrated Additive Manufacturing High-throughput Acoustic Patterning (IMHAP)	2/13/2021 6:00	Biomaterials-Scaffolds	Carolyn Kim	Stanford University
A Computer-aided Scaffold Design Optimization Framework To Enhance Bone Regeneration	2/13/2021 6:00	Biomaterials-Scaffolds	Camille Perier-Metz	Charité – Universitätsmedizin Berlin
Identification Of BMP-2 Interaction Sites On Cartilage Oligomeric Matrix Protein	2/13/2021 6:00	Biomaterials-Scaffolds	J Gabriel Fraley	University of California, Davis Medical Center
Substituted Apatites As Bone Scaffolds	2/13/2021 6:00	Biomaterials-Scaffolds	Clark Nielson	University of Utah
Fluorapatite And Fluorohydroxyapatite Surfaces Drive Adipose-derived Stem Cells To An Osteogenic Lineage	2/13/2021 6:00	Biomaterials-Scaffolds	Sujee Jeyapalina	University of Utah
The Efficacy Of Amniotic Derivatives In The Treatment Of Osteoarthritis	2/13/2021 6:00	Biomaterials-Scaffolds	Dan Li	Feinstein Institute for Medical Research
FEA Simulation Of Parametric Trabecular Bone Scaffolds	2/13/2021 6:00	Biomaterials-Scaffolds	Brian Kunath	Queen's University
Three-dimensional Growth Of Primary Human Osteoblasts On Mo₃Se₃⁻ SCAC-impregnated Silk Fibroin Hydrogel	2/13/2021 6:00	Biomaterials-Scaffolds	Si Young Song	Hallym University Dongtan Sacred Heart Hospital

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Bioactive Glass Ceramics Incorporated With Hydrogel For Bone Regeneration	2/13/2021 6:00	Biomaterials-Scaffolds	Ronak Janani	Sheffield Hallam University
Efficacy Of The Therapy Of Augmentation Using Tilapia Scale-derived Type I Collagen Scaffolds For Rotator Cuff Healing In Rat Models	2/13/2021 6:00	Biomaterials-Scaffolds	Kohei Yamaura	Kobe University Graduate School of Medicine
Prophylactic Treatment Of Rapamycin Ameliorates Naturally Developing And Episode-induced Heterotopic Ossification In Mice Expressing Human Mutant Acvr1	2/13/2021 6:00	Bone-Diseases and Disorders	Hirotsugu Maekawa	Center for iPS Cell Research and Application, Kyoto university
Early Life Stress Does Not Affect Bone Mass In Male Mice But Induces An Osteopenic Phenotype In Female Mice	2/13/2021 6:00	Bone-Diseases and Disorders	Melanie Haffner-Luntzer	Institute of Orthopaedic Research and Biomechanics, Ulm University Medical Center
Exaggerated Bone Microarchitecture Defects And Osteopenia After Splenectomy In A Thalassemia Mouse Model	2/13/2021 6:00	Bone-Diseases and Disorders	Matthew Sherrier	University of Pittsburgh Medical Center
The Effects Of Caloric Restriction On Bone Marrow And The Musculoskeletal System: A Metabolomic Analysis	2/13/2021 6:00	Bone-Diseases and Disorders	Hope Welhaven	Montana State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Conditional Ablation Of Hif Transcription Factors In Ap2cre Expressing Cells Prevents Radiation Induced Marrow Adipose Tissue Expansion	2/13/2021 6:00	Bone-Diseases and Disorders	Wendi Guo	Duke University
Deficits In The Vertebrae Of Db/db Mice Are Partially Rescued By Deletion Of RAGE	2/13/2021 6:00	Bone-Diseases and Disorders	Simon Tang	Washington University in St Louis
Motion Capture Of An Ovine Model Of Hypophosphatasia	2/13/2021 6:00	Bone-Diseases and Disorders	Aaron Henry	Texas A&M University
Mimicking Breast Cancer-bone Metastases Using Spatially Patterned Microribbon-based Hydrogels	2/13/2021 6:00	Bone-Diseases and Disorders	Eva González Díaz	Stanford University
Relationships Among Inflammatory And Degradation-Related Biomarkers Released By Subchondral Bone From Osteoarthritic Knees	2/13/2021 6:00	Bone-Diseases and Disorders	Matthew Gao	University of Missouri Columbia
Malps Promote Osteoclastogenesis In Bone Remodeling And Pathologic Bone Loss	2/13/2021 6:00	Bone-Diseases and Disorders	Wei Yu	University of Pennsylvania
Exploring Disparities In Screening And Treatment For Osteoporosis In Patients With Hip Fractures	2/13/2021 6:00	Bone-Diseases and Disorders	Gregory Benes	Louisiana State University Health Sciences Center

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Comparative Effects Of Abaloparatide And Teriparatide On Cortical And Trabecular Bone	2/13/2021 6:00	Bone-Diseases and Disorders	Tatiana Besschetnova	Radius Health Inc.
Tissue Engineered 3d Models Of Osteosarcoma With In Vivo-mimicking Phenotype For Drug Discovery	2/13/2021 6:00	Bone-Diseases and Disorders	Eva González Díaz	Stanford University
Temporal Effects Of Docetaxel On Tumor Growth And Bone Quality In Rat Model Of Vertebral Bone Metastasis	2/13/2021 6:00	Bone-Diseases and Disorders	Mohammedayaz Rangrez	Sunnybrook Research Institute / University of Toronto
A Novel Rat Model Of Ischemic Osteonecrosis For Investigating Local Therapeutics With Biomaterials	2/13/2021 6:00	Bone-Diseases and Disorders	Chi Ma	Texas Scottish Rite Hospital for Children
Muscle Weakness And Altered Fiber Type In Sheep Hypophosphatasia Is Associated With Diminished Activity And Compromised Kinematics	2/13/2021 6:00	Bone-Diseases and Disorders	Dana Gaddy	Texas A&M University
Influence Of Supernumerary X-chromosome And X Chromosome Inactivation (xci) On Bone Structure In Aged Male Mice With An Xxy Karyotype (klinefelter Syndrome)	2/13/2021 6:00	Bone-Diseases and Disorders	Richard Stange	Institute of Musculoskeletal Medicine, University Hospital Muenster, Muenster, Germany

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Development Of A Blast Injury Model For Investigating Conditions Associated With Traumatic Amputations	2/13/2021 6:00	Bone-Diseases and Disorders	Zepur Kazezian	Imperial College London
Distal Radius Width Adjusted For Height Does Not Predict Fracture Risk	2/13/2021 6:00	Bone-Diseases and Disorders	Fred Nelson	Henry Ford Hospital
Femoral Bone Microarchitecture After Saline And Collagenase Injections In Aging Female Mice	2/13/2021 6:00	Bone-Diseases and Disorders	Kristine Fischenich	University of Colorado Boulder
In Vitro Induced Advanced Glycation End-Products Make Human Cortical Bone Brittle	2/13/2021 6:00	Bone-Diseases and Disorders	Taraneh Rezaee	University of Massachusetts Dartmouth
How Dentin Matrix Protein 1 (dmp1) Plays A Role In Low-magnitude High-frequency Vibration Accelerated Osteoporotic Fracture Healing	2/13/2021 6:00	Bone-Diseases and Disorders	Meng Chen Michelle Li	The Chinese University of Hong Kong
A Preclinical Testing Tool: The In Vitro Fracture Gap Model	2/13/2021 6:00	Bone-Diseases and Disorders	Moritz Pfeiffenberger	Charité-Universitätsmedizin Berlin
Absence Of Galectin-3 Increases Progression Of Osteoarthritis	2/13/2021 6:00	Bone-Diseases and Disorders	Barton Wise	University of California, Davis School of Medicine
Effects Of Estrogen Deficiency On Jaw And Limb Bones In A Rat Model	2/13/2021 6:00	Bone-Diseases and Disorders	Do-Gyoon Kim	The Ohio State University
Bone Deficits In Ambulatory Youth With Spina Bifida: Importance Of Puberty	2/13/2021 6:00	Bone-Growth, Development and Aging	Tishya Wren	Children's Hospital Los Angeles

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Local Modulation Of Insulin-Like Growth Factor-Binding Protein-4 Regulates Bone Elongation In Juvenile Mice	2/13/2021 6:00	Bone-Growth, Development and Aging	Maria Serrat	Marshall University Joan C. Edwards School of Medicine
Sex Differences In Age-Related Changes To Bone In The Senescence-Accelerated Mouse Prone 8 (SAMP8) Model	2/13/2021 6:00	Bone-Growth, Development and Aging	Christine Massie	University of Rochester
Deubiquitinating Enzyme Promotes Osteogenic Differentiation Of Human Bone Marrow Derived Mesenchymal Stem Cells.	2/13/2021 6:00	Bone-Growth, Development and Aging	YOU JI KIM	Yonsei university
Pre-flight Exercise Predicts Unloading-induced Bone Loss Due To Spaceflight	2/13/2021 6:00	Bone-Growth, Development and Aging	Leigh Gabel	University of Calgary
Super Healer Mice Resist Age And Ovariectomy Induced Bone Loss Via Maintaining Higher Osteoprogenitors	2/13/2021 6:00	Bone-Growth, Development and Aging	Xueqin Gao	Steadman Philippon Research Institute
Catecholamines Produced By Myeloid Bone Marrow Cells Mediate The Effects Of Chronic Psychosocial Stress On Bone Homeostasis	2/13/2021 6:00	Bone-Growth, Development and Aging	Miriam Tschaffon	Institute of Orthopaedic Research and Biomechanics, University Medical Center Ulm
High Intensity Exercise During Puberty Restrains Longitudinal Growth Of Rat Tibia	2/13/2021 6:00	Bone-Growth, Development and Aging	Bohao Ning	Polytechnique Montréal

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Biphasic Regulation Of Glutamine Consumption By WNT During Osteoblast Differentiation	2/13/2021 6:00	Bone-Growth, Development and Aging	Leyao Shen	Duke University
Bone Marrow Metabolome Varies By Age And Sex: A Metabolomic Analysis	2/13/2021 6:00	Bone-Growth, Development and Aging	Hope Welhaven	Montana State University
Contribution Of Sexually Dimorphic Genetics And Gut Microbiome To Age-related Bone Loss	2/13/2021 6:00	Bone-Growth, Development and Aging	Diana Dillstrom	University of Colorado Anschutz Medical
Myeloid-lineage Specific Phlpp1 Deletion Enhances Osteoclastogenesis And Bone Resorption	2/13/2021 6:00	Bone-Growth, Development and Aging	Jeyaram Ravichandran Damodaran	University of Minnesota Twin Cities
Functional Interactions Of The Long Non-coding (lnc) Rna CASC20 In Heterotopic Ossification	2/13/2021 6:00	Bone-Growth, Development and Aging	Favour Felix-Ilemhenbhio	University of Sheffield
Quantifying Euler-Bernoulli And Timoshenko Beam Theory Accuracy For Estimating Flexural Rigidity Of A Bone Surrogate In Four-point Bending	2/13/2021 6:00	Bone-Growth, Development and Aging	Mahsa Zojaji	Queen's University
Association Of Serum 25(OH)Vit-D Levels With Risk Of Paediatric Fractures: A Systematic Review And Meta-analysis	2/13/2021 6:00	Bone-Growth, Development and Aging	Tsz-Ping Lam	The Chinese University of Hong Kong

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Progeny Status May Be A Useful Surrogate If Neuter Status Is Not Known In Canine Osteoporosis Studies: An Analysis Of Dogs In “The Georgie Project”	2/13/2021 6:00	Bone-Growth, Development and Aging	John Skedros	University of Utah
Connexin 43 Deficiency Inhibits Differentiation Of Pre-osteocytic Cells	2/13/2021 6:00	Bone-Growth, Development and Aging	Gabriel Hoppock	Virginia Commonwealth University
The Effect Of G Protein Couple Estrogen Receptor-1 (gper-1) During Osteogenesis In Murine Bone Marrow Mesenchymal Stem Cells	2/13/2021 6:00	Bone-Growth, Development and Aging	Ya-Shuan Chou	Kaohsiung Medical University
Decreased Bone Density And Bone Strength During Peak Height Velocity At Puberty: A Cross-sectional Study	2/13/2021 6:00	Bone-Growth, Development and Aging	Guangpu Yang	The Chinese University of Hong Kong
Profiling Tissue Healing Using Mass Cytometry For Development Of Novel Therapies For Critical-size Bone Defects	2/13/2021 6:00	Bone-Injury and Healing	Elijah Ejun Huang	Stanford University
Effect Of The Material Properties And Knee Position To The Bone Bruise Patternin Skeletally Mature And Immature Subjects	2/13/2021 6:00	Bone-Injury and Healing	Satoshi Yamakawa	University of Pittsburgh
Efficient Autocrine And Paracrine Signaling By Mesenchymal Cells Expressing BMP-2	2/13/2021 6:00	Bone-Injury and Healing	Aysegul Atasoy-Zeybek	Mayo Clinic

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Local Zinc Treatment Enhances Bone Healing In Femur Fracture Model In Diabetic Rats	2/13/2021 6:00	Bone-Injury and Healing	Michael Levidy	Rutgers New Jersey Medical School
IGF1-CXCL12 Axis Plays A Critical Role In Fracture Repair	2/13/2021 6:00	Bone-Injury and Healing	Alessandra Esposito	Rush University Medical Center
Prostaglandin-receptor EP4-agonist KMN-159 Promotes Lumbar Fusion In A Preclinical Rat Model	2/13/2021 6:00	Bone-Injury and Healing	Stefan Zwingenberger	University Hospital Carl Gustav Carus at Technische Universität Dresden
Nondestructive Image-based Quantification Of Structural Remodeling At The Bone-callus Interface In Sheep	2/13/2021 6:00	Bone-Injury and Healing	Tianyi Ren	Lehigh University
Enhancing Effects Of Mir-181a/b-1 On Bone Formation Via Regulating Mitochondrial Metabolism	2/13/2021 6:00	Bone-Injury and Healing	Hongjun Zheng	Washington University in St Louis
Detrimental Influence Of Experimental Long Bone Fracture, Traumatic Brain Injury And Combined Trauma On The Heart In Mice	2/13/2021 6:00	Bone-Injury and Healing	Ina Lackner	University Medical Center Ulm
Bone Changes In The Development Of Post-traumatic Osteoarthritis: A Role For Glutamate Receptor Signalling.	2/13/2021 6:00	Bone-Injury and Healing	Cleo Bonnet	Cardiff University
PPAR Expression And Induction Of Angiopoietin-like 4 In Osteoblasts	2/13/2021 6:00	Bone-Injury and Healing	Clare Yellowley	University of California Davis

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Osteogenic Potential Of Induced Membrane Technique For Mandibular Bone Repair	2/13/2021 6:00	Bone-Injury and Healing	Haixiang Liang	Feinstein Institute for Medical Research
A Proof Of Concept Study For Pre-clinically Testing Osseointegration Of Metallic Implants	2/13/2021 6:00	Bone-Injury and Healing	NUPUR KOHLI	Imperial College London
Use Of A Non-osteogenic, Immortalized, Stable Cell Line As An Off-the-shelf Bone Healing Adjuvant: A Preliminary Report	2/13/2021 6:00	Bone-Injury and Healing	Rodolfo De la Vega	Rehabilitation Medicine Research Center, Mayo Clinic
Do Preoperative Selective Serotonin Reuptake Inhibitors Increase The Risk Of Nonunion Following Long Bone Fractures?	2/13/2021 6:00	Bone-Injury and Healing	Sarah Bhattacharjee	University of Chicago Pritzker School of Medicine
Transcriptomic Profile Of The Aging Macrophage Populations Involved In Fracture Healing	2/13/2021 6:00	Bone-Injury and Healing	Daniel Clark	University of California San Francisco
Characterization Of Evolutionarily Divergent Gene Expression During Osteogenesis Using A Comparative Primate Skeletal Cell Culture Model	2/13/2021 6:00	Bone-Injury and Healing	Genevieve Housman	University of Chicago
A Rat Model Of Tibia Fracture And Recovery After Plate Fixation	2/13/2021 6:00	Bone-Injury and Healing	Yingfang Fan	1Harris Orthopaedic Laboratory, Massachusetts General Hospital

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The Effects Of Local Triamcinolone Administration On Bone Regeneration In A Rodent Posterolateral Spinal Fusion Model	2/13/2021 6:00	Bone-Injury and Healing	Allison Wintring	Northwestern University
Dickkopf-1 (dkk1) Neutralization Enhances The Osteogenic Potential Of Adipose Stromal Cells (ascs) And Enhances Osteointegration In A Femoral Segmental Defect Model	2/13/2021 6:00	Bone-Injury and Healing	Stefano Negri	Johns Hopkins University
Provisional Mini-fragment Fixation Does Not Interfere With Dynamic Compression Plating	2/13/2021 6:00	Bone-Injury and Healing	Patrick Schimoler	Allegheny General Hospital
Multi-functional Cerium Oxide Nanoparticles Protect Against Irradiation Induced Cellular Damage While Augmenting Osteogenesis In Vitro	2/13/2021 6:00	Bone-Injury and Healing	Fei Wei	Biionix, College of Medicine, University of Central Florida
Osteogenic Rescue Of Senescent Mesenchymal Stromal Cells Using Senolytic Agents	2/13/2021 6:00	Bone-Injury and Healing	Robert Gresham	University of California, Davis
Tibial Bone Strains In Basketball Players During Simulated Activities	2/13/2021 6:00	Bone-Injury and Healing	Chenxi Yan	University of Illinois at Urbana Champaign

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Cyclin-dependent Kinase Inhibitor-1-deficient Mice Exhibit Delayed Fracture Healing	2/13/2021 6:00	Bone-Injury and Healing	Kenichi Kikuchi	Kobe University
Relationships Among Biomechanics And Metabolic Measures Of Subchondral Bone From Osteoarthritic Knees	2/13/2021 6:00	Bone-Mechanobiology	Hayley Ockerhausen	University of Missouri Columbia
Relationships Among Subchondral Bone Biomechanics, Articular Cartilage Thickness, And Metabolic Profiles For Osteoarthritic Knees	2/13/2021 6:00	Bone-Mechanobiology	Hayley Ockerhausen	University of Missouri Columbia
Genetic Variation Affects Bone Response To Hindlimb Suspension In The Founder Strains Of The Diversity Outbred Mouse Population	2/13/2021 6:00	Bone-Mechanobiology	Michael Friedman	Virginia Commonwealth University
S1pr1 Is A Key Component In Mechanical Loading-induced Angiogenesis And Osteogenesis During Bone Repair	2/13/2021 6:00	Bone-Mechanobiology	Chao Liu	Southern University of Science and Technology
Transcriptional Response To Mechanical Load Differs Along Tibial Cortex With Location And Age	2/13/2021 6:00	Bone-Mechanobiology	Carolyn Chlebek	Cornell University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Disuse From Immobilization Decreases Osteocyte Plasma Membrane Disruptions (PMD) And Causes Cortical Bone Loss	2/13/2021 6:00	Bone-Mechanobiology	Anik Tuladhar	Augusta Universitiy
Fracture Line Proximity Directs Numerical Bone Healing Models To Match In Vivo Ovine Callus Shape	2/13/2021 6:00	Bone-Mechanobiology	Peter Schwarzenberg	Lehigh University
The Use Of A 3-dimensional Mechanical Loading Model Of Human Stem Cell Derived Osteocytes To Study The 'Mechanosome'	2/13/2021 6:00	Bone-Mechanobiology	Sophie Gilbert	Cardiff University
Mechanically Induced Responses In Osteocytic Ocy454 Cells	2/13/2021 6:00	Bone-Mechanobiology	Yumei Chen	Columbia University
Sensitivity Of Osseointegration To The Variation In Geometric Control Factors Of The Macro-textures On The Implant Surface	2/13/2021 6:00	Bone-Mechanobiology	Rajdeep Ghosh	Indian Institute of Technology Guwahati
Scaffold Bone Ingrowth Stiffness Model Using Strain Criteria	2/13/2021 6:00	Bone-Mechanobiology	Timothy Norman	Cedarville University
Tnf-α In Presence Of High Glucose Affects Bone Remodeling Markers In Ocy454 Cells	2/13/2021 6:00	Bone-Mechanobiology	Rachana Vaidya	University of Massachusetts Dartmouth

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Evaluating Early Bone-muscle Changes After Reduced Limb Function Due To Botox Injection	2/13/2021 6:00	Bone-Mechanobiology	Susannah Fritton	The City College of New York
Mature Osteoblasts Embed After Forming Bone And Are Replaced By Progenitor Cells At The Bone Surface	2/13/2021 6:00	Bone-Mechanobiology	Taylor Harris	Washington University in St. Louis
Mechanical Load-induced Sclerostin Degradation In Osteocytes Requires Nitric Oxide	2/13/2021 6:00	Bone-Mechanobiology	Olivia Torre	University of Maryland School of Medicine
Conditional Deletion Of Camkk2 From Osteoprogenitors Elicits Sex-divergent Effects On Bone Mass And Strength	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Brett Mattingly	Indiana University School of Medicine
Optimized Joint Coordinate System Achieves Clinically Meaningful Tibiofemoral Kinematics By Minimizing Kinematic Crosstalk Errors Compared To The ISB Recommendation	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Anne Haudenschild	Depertment of Orthopaedic Surgery, University of California Medical Center
Effects Of Reproduction And Lactation On Osteogenic And Adipogenic Differentiation Potentials Of Bone Marrow Mesenchymal Stem Cells	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Yihan Li	University of Pennsylvania
Design Of Patient-specific Plates For Periprosthetic Fractures Of The Distal Femur	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Zachary Koroneos	Penn State College of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Multi-tissue Structure-function Correlations Between Cartilage, Subchondral Bone Plate, And Subchondral Trabecular Bone In Human Osteoarthritic Knees	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Yizhong Jenny Hu	Bone Bioengineering Laboratory, Department of Biomedical Engineering, Columbia University
Metabolomic Profiles Of Bone Vary By Sex And The Microbiome	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Hope Welhaven	Montana State University
Which Bone Quality Parameters Contribute To Implant Fixation In Rats?	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Kyle Anderson	Rush University Medical Center
Bone Geometry And Mechanical Properties Are Not Impacted By Thermoneutral Housing In Female Mice Exposed To Mechanical Loading Of The Tibia	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Carli Tastad	Indiana University - Purdue University at Indianapolis
Large Individual Bilateral Differences In Tibial Torsion Impact Accurate Contralateral Templating And The Evaluation Of Rotational Malalignment	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Matthew Gallo	Keck School of Medicine of the University of Southern California
The Mechanical Behavior Of PMMA-augmented Bone Specimens Extracted From Human Femoral Heads	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Amelie Sas	KU Leuven

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Stability Of CT-based Inter-scanner Finite Element Measurements For Long Bone Sport Fractures	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Daniel Kargilis	University of Pennsylvania
Proximal Tibia Bone Stiffness And Strength Following An Acute ACL Injury Using HR-pQCT- And QCT-based Finite Element Models	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Nikolas Knowles	University of Calgary
Identification Of Genes Associated With Siglec-15-dependent Osteoclast Differentiation By RNA-seq-based Transcriptome Analysis	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Hideyuki Kobayashi	Hokkaido univesity
Analyzing The Relation Between Femoral Cortical Thickness And Load-to-failure In Suspensory Fixation Of Anterior Cruciate Ligament Grafts: A Pilot Study	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Cameron Vauclin	Louisiana State University Health Sciences Center Shreveport
Low-strain Rate Versus High-strain Rate Biomechanical Behavior Of Highly Cross-linked Bones Mimicking Diabetic Bones	2/13/2021 6:00	Bone-Structure, Function and Mechanics	William Woolley	University of Utah
Analytical Modelling Of Human Trabecular Bone Viscoelastic Response To Compressive Loads	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Brian Kunath	Queen's University
Compressibility Of Osteochondral Autograft Transfer Donor Regions	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Benjamin Miller	Louisiana State University Health Sciences Center Shreveport

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The Effect Of Patellar Surface Morphology On Subchondral Bone Alignment When Matching Patellar Osteochondral Allografts	2/13/2021 6:00	Bone-Structure, Function and Mechanics	John Grant	University of Michigan
Effect Of Gags On The In Situ Mechanical Properties Of Mineralized Collagen And Extrafibrillar Matrix In Bone	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Yan han	university of texas
Simulation Of Strain-driven Trabecular Bone Adaptation To Compressive Forearm Loading In Humans	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Karen Troy	Worcester Polytechnic Institute
Quantitative Regional Assessment Of Navicular Bone Microstructure And Mechanics	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Chantal de Bakker	University of Calgary
The Effect Of Solo- Versus Group- Micro-ct Scanning On Detection Of Trabecular And Cortical Disease Phenotype In Mouse Bones	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Joseph Wallace	Indiana University Purdue University Indianapolis
Prediction Of Elastic Modulus Of Human Trabecular Bone By Deep Learning Model Using Simulated Dxa Images	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Pengwei Xiao	The University of Texas at San Antonio
Application Of Tissue-level Bone Quality Metrics For The Prediction Of Bone Strength	2/13/2021 6:00	Bone-Structure, Function and Mechanics	William Querido	Temple University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Biomechanical Feasibility Of Long Fusion In Relation To The Extent Of Lower-most Fusion Level During Surgical Management Of Degenerative Scoliosis: A Biomechanical Study Using Finite Element Analysis	2/13/2021 6:00	Bone-Structure, Function and Mechanics	DONGMIN SON	Inje university
Evaluation Of The Effects CT Scanner Model And Reconstruction Kernel On The CT Number Calibration	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Ashley Pernsteiner	University of Wisconsin-Madison
Evaluation Of Patella Bone Density Distribution For Transverse Patella Fracture Fixation	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Tyler Rooney	Louisiana State University Health Shreveport
Focal Bone Microdamage Associated With High Speed Exercise In Thoroughbred Racehorses	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Sarah Shaffer	Mechanical and Aerospace Engineering, University of California Davis
Individual Trabecular Mineralization By HR-pQCT Images	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Zexi Wang	Columbia University
Relationships Among Subchondral Bone Microarchitecture And Biomarker Profiles For Osteoarthritic Knees	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Breanne Baker	University of Missouri Columbia
Electrostatic Interactions And Adhesion Of Nanoscale Collagen Films	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Andreas Rohatschek	TU Wien

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Experimental And Numerical Identification Of Crushable Foam Model Of Human Trabecular Bone	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Navid Soltanihafshejani	Radboud university of medical center
Mechanical Loading Effects On Bone Resorption Analyzed By Deep Machine Learning	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Boyan Rong	Columbia University
Influence Of Screws On Load Transfer Across A Reconstructed Mandible: A Finite Element Study	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Kaushik Mukherjee	Indian Institute of Technology Delhi
The Role Of The Skeletal System In A Novel Murine Model Of Chronic Metabolic Acidosis	2/13/2021 6:00	Bone-Structure, Function and Mechanics	Anna Peterson	UConn Health
Transcutaneous CO2 Application Accelerates Fracture Healing In Streptozotocin-induced Type I Diabetic Rats	2/13/2021 6:00	Bone-Treatment and Therapeutics	Takahiro Oda	Department of Orthopaedic Surgery, Kobe University Graduate School of Medicine
Detection Of Prevalent And Prediction Of Incident Osteoporotic Fractures Using Deep Learning Of DXA Images	2/13/2021 6:00	Bone-Treatment and Therapeutics	Sisi Tang	University of Pennsylvania
Effects Of Reamed Intramedullary Nailing With Different Reaming Irrigator Aspirator (RIA) Devices After Experimental Polytrauma With Femur Fracture On The Heart	2/13/2021 6:00	Bone-Treatment and Therapeutics	Ina Lackner	University Medical Center Ulm

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Multifunctional Cerium Oxide Nanoparticles Increase Osteogenesis And Deliver A Disparate But Protective Effect To Macrophages When Under Either Acute Or Chronic Inflammatory Conditions In Vitro	2/13/2021 6:00	Bone-Treatment and Therapeutics	Fei Wei	Biionix, College of Medicine, University of Central Florida
Comparative Study Of Bone Differentiation And Regenerative Ability Of Dedifferentiated Fat Cells (dfats) And Mesenchymal Stem Cells (mscs)	2/13/2021 6:00	Bone-Treatment and Therapeutics	Hirokatsu Sawada	Nihon University School of Medicine
Local Injection Of Preconditioned Mesenchymal Stem Cells Re-establishesbone Homeostasis And Mitigates Particle-induced Chronic Inflammation In Mice	2/13/2021 6:00	Bone-Treatment and Therapeutics	Takeshi Utsunomiya	Stanford University
Effects Of Intermittent Parathyroid Hormone Following Alendronate Treatment On Jawbone Of Ovariectomized Rat	2/13/2021 6:00	Bone-Treatment and Therapeutics	Do-Gyoon Kim	The Ohio State University
A Bone Drilling Simulator With Data Feedback For Quantitative Assessment And Training	2/13/2021 6:00	Bone-Treatment and Therapeutics	Bruce Tai	Texas A&M University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Autologous Bone Particulate Generated By Various Burs Contain Viable Cells With Osteogenic Potential	2/13/2021 6:00	Bone-Treatment and Therapeutics	Valerie Greenwood	Arthrex, Inc.
Effectiveness Of Short-range Uv-led Irradiation In Postmenopausal Osteoporosis Using Ovariectomized Mice	2/13/2021 6:00	Bone-Treatment and Therapeutics	Satoshi Ochiai	Nagoya University Graduate School of Medicine
Efficacy And Tolerability Of Meclozine For The Treatment Of Short Stature In A Mouse Model Of Achondroplasia	2/13/2021 6:00	Bone-Treatment and Therapeutics	Masaki Matsushita	Nagoya University Graduate School of Medicine
Synergetic Effects Of Low-magnitude High-frequency Vibration On Osteocytes In Regulation Of Breast Cancer Bone Metastasis	2/13/2021 6:00	Bone-Treatment and Therapeutics	Chun-Yu Lin	University of Toronto
Gender Differences In Mesenchymal Stem Cell Therapy With Gelatin-based Microribbon Hydrogels In A Murine Long Bone Critical-size Defect Model	2/13/2021 6:00	Bone-Treatment and Therapeutics	Masaya Ueno	Stanford University
HMGB-1: A Mediator Of Spatial T Lymphocyte Depletion And Impaired Fracture Healing In A Polytrauma Rat Model	2/13/2021 6:00	Bone-Treatment and Therapeutics	Preeti Muire	Institute of surgical research
Effect Of Transcutaneous CO₂ Application On Osteoporosis In Orchiectomized Rat	2/13/2021 6:00	Bone-Treatment and Therapeutics	Ryo Yoshikawa	Kobe University Graduate School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
PTH Pre-treatment Prior To Tibial Mechanical Loading Improves The Synergistic Anabolic Skeletal Effects In Mice	2/13/2021 6:00	Bone-Treatment and Therapeutics	Amanda Rooney	Cornell University
Alendronate Improves The Osteolytic Bone Phenotype Of The Osteoclast-specific Mutant Pfn1-cko^{Ocl} Mouseas A Model For Recently Identified Severe Form Of Paget's Disease Of Bone	2/13/2021 6:00	Bone-Treatment and Therapeutics	Yoichi Ezura	Tokyo Medical and Dental University
Bone Microarchitecture Diminishes Following Treatment With A Histone Deacetylase Inhibitor, A Potential Treatment For Acute Kidney Injury	2/13/2021 6:00	Bone-Treatment and Therapeutics	Jennifer Coulombe	University of Colorado Boulder
Comparison Of Reamer-irrigator-aspirate (RIA) To Bone Marrow Aspirate Concentrate (BMC) For Osteoprogenitor Cell Retention And Osteoinductive Protein Release On Cancellous Bone	2/13/2021 6:00	Bone-Treatment and Therapeutics	Brett Crist	University of Missouri Columbia
Transcutaneous Carbon Dioxide Application Combined With Low-intensity Pulsed Ultrasound Accelerates Bone Fracture Healing In Rats	2/13/2021 6:00	Bone-Treatment and Therapeutics	Kenichi Sawauchi	Kobe University Graduate School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Tibial Fracture Healing Is Not Impaired Despite Waning Systemic Anabolism By Sclerostin Antibody In Young Mice	2/13/2021 6:00	Bone-Treatment and Therapeutics	Christopher Stephan	University of Michigan
Assessing Screw Placement Variability In Pelvic Fractures Using 3D Printed Anatomical Models	2/13/2021 6:00	Bone-Treatment and Therapeutics	Pooja Prabhakar	UW
Comparison Of Vancomycin Local Diffusion And Transfer To The Blood From Vancomycin-paste And Vancomycin-powder Implanted In The Femoral Condyle Of A Rabbit	2/13/2021 6:00	Bone-Treatment and Therapeutics	Satoshi Kamihata	Osaka University
Improved Bone Fracture Repair Through Targeted Delivery Of Angiogenic Agents	2/13/2021 6:00	Bone-Treatment and Therapeutics	Jeffery Nielsen	PURDUE UNIVERSITY
Pediatric Orthopaedic Lower Extremity Injuries And The Effect On School Attendance In An Inner City Cohort	2/13/2021 6:00	Bone-Treatment and Therapeutics	Ebony Jernigan	Rutgers New Jersey Medical School
Osteoblast Responses To Amniotic Suspension Allograft In Vitro	2/13/2021 6:00	Bone-Treatment and Therapeutics	Katie Mowry	Organogenesis
Bioactive Microrods For Controlled And Local Release Of Nerve Growth Factor For Fracture Repair	2/13/2021 6:00	Bone-Treatment and Therapeutics	Chelsea Bahney	The Steadman Clinic & Steadman Philippon Research Institute

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Significant Bone Loss Accompanies Myopathy In A Rat Model Of Controlled Mechanical Ventilation	2/13/2021 6:00	Bone-Treatment and Therapeutics	Zbigniew Gugala	University of Texas Medical Branch
Adam17/tace Accelerates Osteoarthritis Development Through Egfr Signaling And Tnf Pathways	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Taizo Kaneko	Department of Orthopaedic Surgery, Faculty of Medicine, The University of Tokyo
Co-contraction Of Quadriceps And Gastrocnemius Muscles Are Associated With Tibiofemoral Cartilage Deterioration 3-months After Anterior Cruciate Ligament Reconstruction	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	ABDULMAJEED ALFAYYADH	University of Delaware
Does Arthroscopic Status At The Time Of ACL Reconstruction Predict Cartilage T2 Change Over The Following Year?	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Ashley Williams	Stanford University
ERK1/2 Mediated Activation Of Dynamin Related Protein 1 (DRP1) Induces Mitochondrial Network Fragmentation And Promotes Apoptosis In Chondrocytes	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Mohammad Ansari	Northeast Ohio Medical University
Differential Site-specific Proteoglycan Loss Occurs With Anterior Cruciate Ligament Transection In Obese Rats	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Kalle Karjalainen	University of Eastern Finland

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Inflammatory Cytokines Modulate Transport Across Length Scales, From Heart To Joint, Tissues To Cells	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Lucy Ngo	University of New South Wales
Knee Excursion Mediates The Longitudinal Effect Of Knee Cartilage On Acetabular Cartilage T₂ Relaxation Times: A Causal Mediation Analysis	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Koren Roach	UCSF
Loss Of ARC (Apoptosis Repressor With Caspase Recruite Domain) From Chondrocytes Contributes To Cartilage Pathology, But Is Associated With Reduced Mechanical Allodynia After Surgically-induced Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Cindy Shu	University of Sydney
Transcriptomic Analyses In Infrapatellar Fat Pad Retrieved From Osteoarthritis Patients Undergoing Total Knee Replacement Surgery.	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Purva Singh	Hospital for Special Surgery
Cartilage-specific Nfat1 Overexpression Rescues Osteoarthritic Phenotypes In Specific Joint Tissues Of Nfat1-deficinet Mice: A Novel Transgenic Approach For Studying Pathogenesis Of Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Jinxi Wang	University of Kansas Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Novel Regulatory Role Of Trappc9 And L-plastin In Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Nazar Hussein	Northeast Ohio Medical University
Partial Meniscectomy Results In Pain And Remodelling Of Joint Nociceptors In Mice Of Both Sexes, But Joint Damage Is Much Milder In Females	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Anne-Marie Malfait	Rush University Medical Center
Abat Modulates Chondrocyte Homeostasis In A GABAergic Fashion	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Amir Kucharski	Washington University in St. Louis
RNA-seq Analysis Reveals Different Gene Ontologies In Cartilage From Early- And Late Stage Of Femoroacetabular Impingement	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Cecilia Pascual-Garrido	Washington University School of Medicine
Sirt5 Deficiency Causes Post-translational Protein Malonylation And Dysregulated Cellular Metabolism In Chondrocytes Under Obesity Conditions	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Shouan Zhu	Ohio University Ohio Musculoskeletal & Neurological Institute
Prevalence Of Femoral Arthritis Of The Hip And Knee Joints In Portuguese Water Dogs From “The Georgie Project”: Implications For Genetic Analysis	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	John Skedros	University of Utah
Gene Expression-based Drug Repurposing For Post-traumatic Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Aimy Sebastian	Lawrence Livermore National Laboratories

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Rheumatoid Synovitis Identification Via Dynamic Contrast Enhanced MRI And T2 Parametric Mapping	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Richard Lartey	Cleveland Clinic
Effects Of Passage On The Metabolic Profile Of Osteoarthritic Chondrocytes	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Allyson Caisley	University of Missouri Columbia
Increased Levels Of Il1β And Il6 In Human Osteoarthritic Cartilage-derived Mesenchymal Stem Cells Are Mediated By Tnfr1 But Not By Tnfr2	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Brandon Vorrius	Rhode Island Hospital
Inducible Mice Model For Synovial Inflammation A Longitudinal Inflammatory Study	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Umesh Gangishetti	Emory University
Osteoarthritic Synoviocytes Exhibit A Latent Osteogenic Phenotype	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Matthew Stewart	University of Illinois
Differential Methylation Indexes Disease Severity In The Cartilage Of A Nonhuman Primate Model Of Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Bethany Wildeman	Wake Forest School of Medicine
3D MRI Analysis For Cartilage In Anterior Cruciate Ligament Deficient Knees Using Radially Projected Images	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Nobutake Ozeki	Center for Stem Cell and Regenerative Medicine, Tokyo Medical and Dental University
Myeloid Cell Transcriptome Signatures Associated With Synovial Inflammation Resolution	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Bruno Menarim	Virginia-Maryland College of Veterinary Medicine, Virginia Tech

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Immunosuppressive Regulatory T Cells Are Unable To Suppress T Helper 17 Cells In Post-traumatic Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Laura Keller	Cornell University
Characterization Of Porcine Articular Cartilage And Subchondral Bone In The Near Infrared Region	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Shital Kandel	Temple University
^{The Metabolic Change In Osteoarthritis}	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Yoshifumi Ohashi	Nagoya University, Department of Orthopedic Surgery
Role Of Novel Cytokines IL 19 And IL 24 In Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Si Young Song	Hallym University Dongtan Sacred Heart Hospital
Chondrocyte Ferroptosis Contribute To The Pathogenesis Of Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Kai Sun	Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology
Single Cell Rna Sequencing Of Rat Knee Infrapatellar Fat Pad Identifies Macrophage Phenotypic Shifts In Inflammatory Joint Disease And Following Stem Cell Therapy	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Anthony Griswold	University of Miami
Quantitative Histological Program For Assessing Rodent Synovium In Frontal Knee Sections	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Yan Pacheco	The University of Florida

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Patient Characteristics Associated With Knee Osteoarthritis (OA) Symptom Severity At Initial Orthopedic Consultation	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Harel Schwartzberg	LSUHSC New Orleans
Exogenous Hyaluronan Inhibits Enhanced Glycolysis In Articular Chondrocytes Treated With Il-1β.	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Yutaka Yokota	Nagoya University Graduate School of Medicine
Relationships Among Inflammatory And Degradation-related Biomarkers Released By Articular Cartilage From Osteoarthritic Knees	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Ashwin Garlapaty	University of Missouri Columbia
The Role Of Syndecan-4 In Chondrocyte	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Yoshio Hattori	Dept. of Musculoskeletal Surg., Mie Univ. Postgraduate School of Medicine
Cigarette Smoke Exposure Increases Severity Of Cartilage Degradation In Rats With Femoral Fractures	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Tong Ye	Clemson University
Metabolic Changes In Early Inflammatory Synovial Cells	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Kenji Kishimoto	Nagoya University Graduate School of Medicine
Two Distinct Pools Of Mesenchymal Stem Cells Represent Progression Of Cell Senescence In Human Osteoarthritic Articular Cartilage	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Yajun Liu	Brown University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Curcumin Primed Human Bmsc Derived Extracellular Vesicles Reverse Il-1β Induced Catabolic Responses Of Osteoarthritic Chondrocytes Via Upregulating Of Mir-126-3p	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Susanne Grässel	University of Regensburg
IL-36ra Attenuates Cell Apoptosis And Preserves Cell Viability In Human Impacted Articular Cartilage	2/13/2021 6:00	Cartilage and Synovium-Diseases and Disorders	Anna Spagnoli	RUSH UNIVERSITY MEDICAL CENTER
Single Cell Expression Analysis Of Pediatric Cartilagedemonstratesunique Signatures For Articular And Physeal Chondrocytes	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Donna Pacicca	Children's Mercy Hospital
A Human Msc-based Organotypic Model Of Appendicular Skeletogenesis For Environmental Toxicity Testing	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Peter Alexander	University of Pittsburgh
An In Vivo Stable Isotope Labeling Method To Investigate Age-Related Changes In Protein Synthesis And Cellular Turnover In Murine Articular Cartilage	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Kamil Kobak	Oklahoma Medical Research Foundation
The Combination Of Mitogenic Stimulation And DNA Damage Induces Chondrocyte Senescence	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Brian Diekman	University of North Carolina at Chapel Hill

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Transcriptomic Divergence Between Equine Fetal Interzone And Anlagen Cells During In Vitro Chondrogenesis	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Chan Hee Mok	University of Kentucky
IGFBP7 Induces Senescence Of Chondrocytes By Paracrine Effect In Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Hyun Cheol Bae	Department of Orthopedic Surgery, Seoul National University Hospital
Il-1β Enhances The Proliferation Of Human Synovial Mesenchymal Stem Cells By Extending The Phosphorylation Of Extracellular Signal-regulated Kinase 1/2 (erk1/2)	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Guo Tang	Department of Joint Surgery and Sports Medicine, Tokyo Medical and Dental University
DPP-4 ⁺ Chondrocytes Have Senescent Phenotypes And Exacerbate Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Hyun Cheol Bae	Department of Orthopedic Surgery, Seoul National University Hospital
Exosome Secretion Increases With Culture Expansion And Age In Banked Human Adipose Derived Stem Cells	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Michael Mullen	Steadman Philippon Research Institute
Serum Cartilage Oligomeric Matrix Protein Is Correlated With Cartilage Degenerative Change On Magnetic Resonance Imaging In Patients With Anterior Cruciate Ligament Injury	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Yohei Nishida	Osaka City University Graduate School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Thalidomide Effects Are Revealed In Defined, Physiologically Inspired, Chondrogenic Media	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Thomas Kean	University of Central Florida
Influence Of Heat Stress On Sirt1 Transfected Chondrocytes	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Kenta Kaihara	Department of Orthopaedics, Graduate School of Medical Science, Kyoto Prefectural University of Medicine
Zbtb16 And Sdc2 Regulates Epigenomic And Transcriptional Dynamics During Human Mesenchymal Stem Cells Chondrogenesis	2/13/2021 6:00	Cartilage and Synovium-Growth, Development and Aging	Mohd Khan	Emory University
Modulation Of Fibroblast And Macrophage Inflammatory Response By Cannabinoid Ligands	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Phillip Rzeczycki	University of Michigan
Progranulin Derivative Atsttrin Promotes Chondrogenesis And Cartilage Regeneration	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	KAIDI WANG	New York University Medical Center
Targeting TNFR2 Signaling To Treat Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Wenyu Fu	New York University Medical Center
Cdk9 Inhibition Suppresses Macrophage Recruitment In Acl-rupture Mouse Ptoa Model	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Yihan li	UCdavis
Evaluation Of A Supramolecular-covalent Gel For Osteochondral Defect Repair In A 6-month Ovine Model	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Yan Lu	UW-Madison

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Valgus Malalignment Induces Osteoarthritis In The Ovine Stifle Joint	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Katherine Hohl	Beth Israel Deaconess Medical Center
Influence Of Statins On Cartilage Homeostasis After Traumatic Loading And During Chondrogenic Differentiation	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Jana Riegger	University of Ulm
Articular Cartilage And Meniscal Degradation From Reduced Weight-bearing Is Recovered With Exercise	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Nequesha Mohamed	Wake Forest Baptist Health
Analgesic Effects And Arthritic Changes By Tramadol Administration In A Rat Osteoarthritis Model.	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	KEIJIRO KANNO	Chiba University
Delivery Of Chondrogenic Genes Using Coagulated Bone Marrow To Repair Osteochondral Defects	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Christopher Nagelli	Mayo Clinic
Intra-articular Administration Of Triamcinolone Acetonide Reduces Inflammation, But Does Not Improve Cartilage Repair	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Marinus Anthonie (Tim) Wesdorp	Erasmus MC
Microribbon Based Macroporous Matrices Enhance Cartilage Repair In Rat Osteochondral Defect Model	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Xinming Tong	Stanford University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Extracellular Vesicles Released From Human Adipose-derived Stem Cells Enhance Articular Chondrocyte Function	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Shun Cheng Wu	Kaohsiung Medical University
Susceptibility Of Cyclin-dependent Kinase Inhibitor-1-deficient Mice To Rheumatoid Arthritis From Il-1β-induced Inflammation	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Yoshinori Takashima	Kobe University Graduate School of Medicine
The Depletion Of B-series Gangliosides Inhibited The Growth Imbalance After Growth Plate Injury	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Yoshiaki Hosokawa	Hokkaido University
Inflammatory Chondrocyte Gene Expression And Pathways Are Dependent Upon Mode Of Injury And Level Of Synovitis	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Bridgette Furman	Duke University Medical Center
Mesenchymal Stem Cells Promote Chondrocytes Proliferation In The Direct Contact Co-culture System	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	La Li	Peking University Third Hospital
Relationships Between Anatomy, Alignment, And Cartilage Degradation In The Patellofemoral Joint: Application To Patellar Dislocations	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Mei Li	Cleveland Clinic Foundation

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Immunohistochemical And Histologic Analysis Of Amniotic Membrane Versus Microfracture For Treatment Of Osteochondral Defects In A Goat Model	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Navya Dandu	Rush University Medical Center
A Hyaluronan-binding Peptide Protects Human Mesenchymal Stem Cells In An Inflammatory Environment	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Thorsten Kirsch	NYU Grossman School of Medicine
A2M Inhibits Catabolism By Blocking IL-1β/NF-κB Pathway	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Changqi Sun	Brown Alpert Medical School
Focal Cartilage Defect Repair With Viable Cartilage Allograft In A Goat Model	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Melissa Granda	mtf biologics
Hyperoxia Potentiates Persistent Increases In Thiol Oxidation And Decreases In Mitochondrial Content After Mechanical Injury	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Paige Kluz	The University of Iowa
A Comparison of Minced vs. Minimally Manipulated Articular Cartilage	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Aghogho Evuarherhe	Rush University Medical Center
Regulatory T Cells Are Unable To Suppress Inflammatory Effects Of Il-1β In An In Vitro Model Of Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Laura Keller	Cornell University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
In Situ UDP-glucose Dehydrogenase Activity In Fibroblast-like Synoviocytes Is Detected Through A Mechanism Involving Glutathione	2/13/2021 6:00	Cartilage and Synovium-Injury and Healing	Ramya Chandrasekaran	George Mason University
Cyclic Compression Loading Promotes Production Of Pain-related Molecules In Human Osteochondral Tissue	2/13/2021 6:00	Cartilage and Synovium-Mechanobiology	Wen Shi	Osaka University
Cartilage Lesions And Interleukin-1-driven Inflammation Abrogate The Beneficial Effects Of Moderate Dynamic Loading In A Bovine Cartilage Model Of Post-traumatic Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Mechanobiology	Atte Eskelinen	University of Eastern Finland
Transcriptional Crosstalk Between Cartilage And Bone Is Altered In Load-induced Oa With Pth And Alendronate	2/13/2021 6:00	Cartilage and Synovium-Mechanobiology	Adrien Antoinette	Cornell University
Polyunsaturated Fatty Acids Suppress Piezo Ion Channel Mechano-activation In Primary Chondrocytes	2/13/2021 6:00	Cartilage and Synovium-Mechanobiology	Alireza Savadipour	Washington University in Saint Louis
Metabolomic Profiling And Characterization Of A Novel 3D Culture System For Studying Chondrocyte Mechanotransduction	2/13/2021 6:00	Cartilage and Synovium-Mechanobiology	Priyanka Brahmachary	Montana State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Growth Factor Priming Of Chondrocytes During Expansion Culture Inhibits Pro-inflammatory Cytokine Signaling	2/13/2021 6:00	Cartilage and Synovium-Mechanobiology	Emily Lindberg	University of California, Berkeley
Mechanical Stress-induced Lipoid Degeneration In The Acetabular Labrum	2/13/2021 6:00	Cartilage and Synovium-Mechanobiology	Yoshi Kawamura	Department of Orthopaedic Surgery, Okayama University Medical School
Effects Of Walking On ACL Deficient Knee Cartilage Strains	2/13/2021 6:00	Cartilage and Synovium-Mechanobiology	Bryan Crook	Duke University
Microtubule Tyrosination-state And Rho Signaling Regulate Chondrogenic Differentiation In Atdc5 Cells	2/13/2021 6:00	Cartilage and Synovium-Mechanobiology	Ryan Daniels	University of Pennsylvania
Where Classical Fibroblast Markers Fail: Metabolic Activity And Proliferation Discriminate Fibroblast-like Synoviocytes From Mesenchymal Stromal Cells	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Alexandra Damerau	Charité-Universitätsmedizin Berlin
^{Flightless I Is A Novel Catabolic Factor Of Chondrocytes Induced By Synovial Inflammation In Osteoarthritis}	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Taku Ebata	Hokkaido University
Proliferation And Differentiation Potential Of Clonal Human Articular Cartilage Progenitor Cells	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Leah Snyder	Oregon Health and Sciences University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Polyacrylamide Hydrogel Viscosupplements Lubricate Cartilage After Mechanical Injury And Biochemical Degradation	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Karan Vishwanath	Cornell University
Il-36ra Induces Chondrogenic Differentiation In Primary Articular Chondrocytes	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Anna Spagnoli	RUSH UNIVERSITY MEDICAL CENTER
Inflammatory Macrophage-derived Extracellular Vesicles Promote Chondrocyte Catabolism And Cartilage Degeneration: An Insight Into The Crosstalk Between Macrophage And Chondrocytes In Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	TAKU EBATA	Hokkaido University
Finite Element Analysis Of Osteochondral Explants For Studying Fluid Pressure Gradients	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Brady Hislop	Montana State University
Loss Of Articular Cartilage Surface Region Alters Stribeck Curve And Resulting Frictional Behavior	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Thomas Wyse Jackson	Cornell University
The Effect Of Patient Demographics And Physical Activity On Knee Articular Cartilage Structure After ACL Injury	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Tyler Kallman	University of Nebraska Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Synovial Superficial Cells Proliferate Toward Deeper Layer In A Rat Monoiodoacetic Acid-induced Arthritis Model.	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Aritoshi Yoshihara	Department of Joint Surgery and Sports Medicine, Graduate School of Tokyo Medical and Dental University
Cartilage-specific Adam10 Conditional Knock Mouse Suppressed The Progression Of Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Hironobu Kosugiyama	Nagoya University Graduate School of Medicine
Functional Characterization Of Engineered Synovium: Friction Coefficient And Elastic Modulus	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Lianna Gangi	Columbia University
Effect Of Osmolarity On The Fracture Behavior Of Articular Cartilage	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Corinne Henak	University of Wisconsin-Madison
Local Shear Properties Of Rabbit Articular Cartilage Capture Surface Region Properties Of Human, Equine, And Bovine Tissue	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Rebecca Irwin	Cornell University
Enhancing Mitophagy To Restore Mitochondrial Function In Mechanical Overloading-insulted Chondrocytes	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Yuchen He	University of Pittsburgh
Hyaluronic Acid/cd44 Signal Axis Plays Important Roles During The Formation And In The Maintenance Of Mesenchymal Stem Cell (msc) Antigen-positive Cells In Vitro	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Masaaki Isono	Tokyo Medical and Dental University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Development, Parameterization, And Application Of A Finite Element Model Of The Cartilage Superficial Zone	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Catherine Yuh	Rush University
Relationship Between Joint Instability And Synovitis In The Early Stage Of Knee Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Kei Takahata	Graduate School of Saitama Prefectural University
Raman Plate Reader For Quantitative Molecular Monitoring Of Live Cartilage Explants	2/13/2021 6:00	Cartilage and Synovium-Structure, Function and Mechanics	Juncheng Zhang	Boston University
Hip Corticosteroid/anesthetic Injections—Are The Reported Rates Of Osteoarthritis Progression And Femoral Head Collapse Real?	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Michael Kucharik	Massachusetts General Hospital
Pain Relief Following Treatment Of Early Knee Osteoarthritis With Autologous Platelet Rich Plasma Correlate With Improved Gait Mechanics And Cytokine Profile: Is This Good Enough?	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Constance Chu	Stanford University
Effectiveness Of Platelet-rich Fibrin Membrane To Defective Cartilage In Promoting Regeneration In A Rabbit Model	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Takuya Kinoshita	Osaka City University Graduate School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Activation Of Transient Receptor Potential Vanilloid-4 Inhibits Il-1β Induced Articular Cartilage Degradation Via Regulation Of CaMKK/AMPK/NF-κB Signaling Pathway.	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Kyosuke Hattori	Nagoya university
Benefits Of Carbon Dots As Novel Platforms To Genetically Modify Human Articular Chondrocytes Via Delivery Of Raav Vectors	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Jagadeesh Venkatesan	Center for Experimental Orthopadie
Evaluation Of Residual Undifferentiated Human-induced Pluripotent Stem Cells In Chondrocytes By Cell Type-specific Glycosphingolipid Glycome Analysis Based On The Aminolysis-salsa Technique	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Takuji Miyazaki	Department of Orthopedic Surgery, Hokkaido University Graduate School of Medicine
Effect Of Suppression Of Joint Instability On Cartilage And Meniscus Degeneration	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Kohei Arakawa	Graduate School of Saitama Prefectural University
Targeted Silencing Of Anti-chondrogenic Signalling Pathways Using A Sirna-activated Scaffold For The Treatment Of Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Domhnall Kelly	Royal College of Surgeons in Ireland
Local Administration Of Low-dose Nerve Growth Factor Antibody Reduced Pain In A Rat Osteoarthritis Model	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Yuan Tian	Hokkaido University Faculty of Medicine and Graduate School of Med

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Biological Impact Of Dynamic Loading With Dexamethasone On Cytokine-Challenged Bovine Cartilage	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Hannah Szapary	MIT
Zonal Differences In Articular Chondroprogenitor Cells Of Normal Equine Cartilage	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Parvathy Thampi	Orthopaedic Research Center and C. Wayne McIlwraith Translational Medicine Institute, Colorado State University
Joint Destruction Was Suppressed By Treadmill Running In A Rheumatoid Arthritis Rat Model	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Yuta Fujii	Department of Orthopaedics, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Kyoto, Japan
Localized Delivery Of Physiologic TGF-beta Doses Improves Cell Morphology In Functional Engineered Cartilage	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Tianbai Wang	Boston University
Osteochondral Allograft Transplants For Large Oval Defects Of The Medial Femoral Condyle: Comparison Of Lateral Vs. Medial Femoral Condyle Donors And Single Vs. Double Plug Constructs	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	John Grant	University of Michigan
Nanowarming And Ice-free Cryopreservation Of Large Articular Cartilage Specimens	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Hai Yao	Clemson University

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Rapid Elimination Of Senescent Pbmcs Using The Senolytic Agent Fisetin: Potential Orthobiologic Implications	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	William Hambright	Steadman Philippon Research Institute
Effect Of Surface Charge On The Performance Of A Theranostic Nanolubricant	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Anisha Joenathan	Boston University
The Examination Of Paracrine Effect Of Stromal Vascular Fraction On Human Chondrocytes	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Masahiro Fujita	Department of Orthopaedic Surgery, Kobe University Graduate School of Medicine
Enhanced Repair Of Human Osteochondral Defects Upon Implantation Of Human Bone Marrow Aspirates Modified By Raav Gene Transfer And Overexpression Of Sox9 And Tgf-beta Via Pnass-grafted Poly(e-caprolactone) Film-guided Delivery	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Jagadeesh Venkatesan	Center for Experimental Orthopadie
Opioid Alternative-Intraarticular Thermoresponsive Dexamethasone Prodrug Ameliorates Post-traumatic Ostheoarthritis Pain	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Xin Wei	Department of Pharmaceutical Sciences, University of Nebraska Medical Center
Three-dimensional Human Osteochondral Tissue As A Novel In Vitro Model Of Arthritis And Preclinical Drug Screening Platform	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Alexandra Damerau	Charité-Universitätsmedizin Berlin

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Anti-inflammatory And Regenerative Effects Of Small Molecules For Osteoarthritis - In Vitro And Ex Vivo Evaluation	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Zhen Li	AO Research Institute Davos
In Vitro Delivery Of Losartan And Fisetin Indicate Improved Methods For Bone Marrow Stem Cell Stimulation	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Yoichi Murata	Steadman Philippon Research Institute
Photopolymerizable Hydrogel-guided Delivery Of Raav Vectors In Human Bone Marrow-derived Mesenchymal Stromal Cells	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Jagadeesh Venkatesan	Center for Experimental Orthopadie
Pain PersistenceandArticular Cartilage Degeneration Were Significantly Alleviated By An Anti-fibrotic Drug Treatment In Monoiodoacetate Induced Rat Arthritis Model	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Jae-Sung An	Department of Joint Surgery and Sports Medicine, Graduate School, Tokyo Medical and Dental University
Nucleated Cell Count And Colony Forming Units Do Not Predict Mesenchymal Stromal Cell Count In Bone Marrow Concentrate	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Michelle Greenfield	Cornell University
Infrapatellar Fat Pad Mesenchymal Stem Cells Show Immunomodulatory Exosomal Signature And As 3d Spheroids Enhanced Synovitis And Fibrosis Therapeutic Capacity	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Dimitrios Kouroupis	University of Miami, Miller School of Medicine

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Exercise-induced Modification Of The Gut Microbiota Attenuates The Progress Of Experimental Post-traumatic Osteoarthritis	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Jiaming Zhang	Department of Orthopedics, Tongji Hospital, Tongji Medical College, HUST, China
Chondroprotective Effect Of AICAR Involve Changes In Chondrocyte Energy Metabolism	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	masataka maeda	65 Tsurumai-cho
Design And Fabrication Of A Knee-on-a-chip Microdevice Using 3d Printing	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Adil Akkouch	WMU Homer Stryker M.D. School of Medicine
Customized Platelet Rich Plasma Via Avastin Conjugated Beads Indicates Methods For Improved Cartilage Repair	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Michael Mullen	Steadman Philippon Research Institute
Undenatured Type II Collagen Mitigates Pain And Improves Mobility, Activity, And Speed In Healthy Labrador Retrievers During An Exercise Regimen	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Jessica Varney	Four Rivers Kennel, LLC
The Use Of HiPSCs For Regeneration Of The Knee Joint Cartilage In Animal Models: A PRISMA Systematic Review	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Achi Kamaraj	Division of Trauma and Orthopaedic Surgery, University of Cambridge

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Five Year Outcomes After Observation Versus Debridement Of Unstable Chondral Lesions During Partial Meniscectomy: The Chondral Lesions And Meniscus Procedures (ChAMP) Randomized Controlled Trial	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Leslie Bisson	University at Buffalo
Auto-regulated Suppression Of Runx2 In Hmscs To Improve Cartilage Matrix Production And Attenuate Joint Inflammation	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Gurcharan Kaur	University of Michigan
Marked Differences In Local Bone Remodeling Based On Marrow Stimulation Technique In A Large Animal	2/13/2021 6:00	Cartilage and Synovium-Treatment and Therapeutics	Hannah Zlotnick	University of Pennsylvania
Automated Identification Of Clinically Useful Data Elements In Operative Notes For Patients With Adverse Local Tissue Reaction In Head-neck Taper Corrosion Of Primary Metal-on-polyethylene Total Hip Arthroplasty: A Natural Language Processing Approach	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Machine Learning Model For The Prediction Of Discharge Disposition After Revision Total Joint Arthroplasty	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School

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Fate Of Retained Femoral Stem After Revision THA For Taper Corrosion Associated Adverse Local Tissue Reaction	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Are Intrauterine Contraceptive Devices A Cause Of False-positive Musculoskeletal Hip Joint Pain?	2/13/2021 6:00	Clinical Research-Big Data Research	Nathan Varady	Massachusetts General Hospital
The Same Day Discharges Following Primary Total Joint Arthroplasty: A Single Surgeon, Propensity-score-matched Cohort Analysis	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
The Natural Course Of Recovery Of Activity Of Daily Living Function Following Hip Arthroscopy For Femoroacetabular Impingement Syndrome	2/13/2021 6:00	Clinical Research-Big Data Research	Ian Clapp	Rush University Medical Center
A Propensity Score-matched Comparision Of Patient Satisfaction Following Periacetabular Osteotomy Or Hip Arthroplasty For Developmental Dysplasia Of The Hip In An Asian Cohort	2/13/2021 6:00	Clinical Research-Big Data Research	Tetsunari Harada	Kyushu University hospital

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The Use Of Natural Language Processing To Identify Clinically Useful Data Elements In Revision Total Joint Arthroplasty Operative Notes	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Artificial Neural Network Model For The Prediction Of Total Perioperative Blood Loss And Transfusions After Revision Total Hip Arthroplasty	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Method Development For Calculating Hip Joint Angles And Moments During Walking And Stair Ascent Using Neural Networks And Wearables	2/13/2021 6:00	Clinical Research-Big Data Research	Ryan Chapman	Dartmouth College
Analyzing The Interactions Between Orthopedic Spine Surgeons And Device Manufacturers Using The Open Payments Database	2/13/2021 6:00	Clinical Research-Big Data Research	Ahmed Khokhar	Albert Einstein College of Medicine
Mood Disorders Are Associated With Increased Perioperative Opioid Usage And Healthcare Costs In Patients Undergoing Knee Cartilage Restoration Procedures	2/13/2021 6:00	Clinical Research-Big Data Research	Caitlin Conley	University of Kentucky

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Psychological Healthcare Burden Lessens After Rotator Cuff Repair For Those With Comorbid Depression Or Anxiety	2/13/2021 6:00	Clinical Research-Big Data Research	Nicole Cascia	University of Kentucky
Does Sedentary Lifestyle Lead To Increased Osteoarthritis Among Diabetic Patients?	2/13/2021 6:00	Clinical Research-Big Data Research	Nequesha Mohamed	Wake Forest Baptist Health
Identifying Clinical Laboratory Parameters From Electronic Medical Records For Evaluating Periprosthetic Joint Infection With Natural Language Processing	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Predicting Early Revision After Primary Total Joint Arthroplasty: A Machine Learning Approach	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Characterizing The Incidence Of Avascular Necrosis After Corticosteroid Injections Of The Hip	2/13/2021 6:00	Clinical Research-Big Data Research	Nathan Varady	Massachusetts General Hospital
The Use Of Google Trends Data To Investigate The Effects Of Covid-19 Stay-at-Home Orders On Public Interest In Common Elective Orthopaedic Procedures	2/13/2021 6:00	Clinical Research-Big Data Research	Samuel Cohen	Stanford University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Study Of Incidence And Epidemiology Of Clubfoot Cases In Southeastern Wisconsin Over A 14 Year Time Period	2/13/2021 6:00	Clinical Research-Big Data Research	Brooke Olson	Medical College of Wisconsin
Alzheimer Disease Patients Reporting Falls Have Decreased Cognitive Function Compared To Those Not Reporting Falls	2/13/2021 6:00	Clinical Research-Big Data Research	Vidyani Suryadevara	Indiana University
Pediatric Orthopaedic Trauma And Associated Injuries At An Inner-city Level 1 Trauma Center	2/13/2021 6:00	Clinical Research-Big Data Research	Michael Levidy	Rutgers New Jersey Medical School
Machine Learning Model For The Prediction Of Re-revision After Revision Total Joint Arthroplasty	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Lymph Node Metastasis In “High Risk” Extremity Soft Tissue Sarcoma And Prognostic Factors Influencing Survival	2/13/2021 6:00	Clinical Research-Big Data Research	Charles Gusho	Rush University Medical Center
Predicting 30-day Unplanned Readmissions After Primary Total Joint Arthroplasty Using Machine Learning Algorithms	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Deep Learning Algorithm For The Prediction Of In-hospital And 90-day Post-discharge Complications After Revision Total Knee Arthroplasty	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Public Interest In Elective Hand And Wrist Surgery During COVID-19: A Google Trends Analysis	2/13/2021 6:00	Clinical Research-Big Data Research	Samuel Cohen	Stanford University
Machine Learning Model For The Prediction Of Prolonged Length Of Stay After Revision Total Joint Arthroplasty	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Machine Learning Model For The Prediction Of Periprosthetic Joint Infection After Revision Total Knee Arthroplasty For Aseptic Failure	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Sunshine Act: Assessment Of The Relationship Between Orthopedic Trauma Surgeons And Industries	2/13/2021 6:00	Clinical Research-Big Data Research	Ahmed Khokhar	Albert Einstein College of Medicine
Longitudinal Changes In Force Plate Measures Are Valid Indicators Of Musculoskeletal (MSK) Health In Professional American Football Players	2/13/2021 6:00	Clinical Research-Big Data Research	Timothy Hewett	Hewett Global Consulting
Variability In Payments Received By Orthopedic Surgical Subspecialties From 2014 To 2019 As Disclosed By The U.S Centers For Medicare & Medicaid Services (CMS)	2/13/2021 6:00	Clinical Research-Big Data Research	Ahmed Khokhar	Albert Einstein College of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Machine Learning Model For The Prediction Of Recurrent Infection Following Revision Total Joint Arthroplasty For Periprosthetic Joint Infection	2/13/2021 6:00	Clinical Research-Big Data Research	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
The Utility Of Google Trends Data For Analyzing Public Interest In Total Knee Arthroplasty	2/13/2021 6:00	Clinical Research-Big Data Research	Samuel Cohen	Stanford University
Transcriptomic Profiling Of Diverse Msc Population Using Single And Bulk Rna-sequencing Analysis Identifies Novel Mesenchymal Surface Markers	2/13/2021 6:00	Clinical Research-Big Data Research	Nazir Khan	Emory University
Minorities And Women Receive Less Industry Payments Than White, Male Academic Orthopaedic Surgeons	2/13/2021 6:00	Clinical Research-Big Data Research	Shivani Pandya	University of Miami
Exploring Statistical Control Of Specimen Size: Examples Using Portuguese Water Dogs From “The Georgie Project”	2/13/2021 6:00	Clinical Research-Clinical Research Methods	James Marshall	University of Utah
Automated Identification Of Clinically Useful Data Elements In Total Joint Arthroplasty Operative Notes: A Natural Language Processing Approach	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Treatment Of Periprosthetic Joint Infection With The Engineered Antimicrobial Peptide Plg0206 Using A Large Animal Model	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Kimberly Brothers	University of Pittsburgh
Sub-mic Vancomycin Promotes Staphylococcus Aureus Biofilm Formation, Infection, and Pathogenesis	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Kenneth Urish	University of Pittsburgh
Large Variations In Antibiotic Ability To Remove Staphylococcus Epidermidis Biofilm In Periprosthetic Joint Infection	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Kenneth Urish	University of Pittsburgh
C2 Pedicle Sclerosis Grading, More Than Just Diameter, Predicts Surgeons' Assessment Of Safe Screw Placement: A Novel Classification System	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Erika Chiapparelli	Hospital For Special Surgery
Genotype Diversity Between Surgical And Nasal Staphylococcus Aureus Isolates	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Kenneth Urish	University of Pittsburgh
Effects Of Pregnancy-related Inertial Parameters On The Risk Of Falling	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Jerome Hausselle	Oklahoma State University
Discrete Projection And Similarity Analysis In Ankle Osteoarthritis Patients	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Cherice Hill	Clemson University, Medical University of South Carolina

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Contemporizing The Ethical, Legal, And Regulatory Framework For Research On Human Biospecimens	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Roy Aaron	Brown University
Methods For The Detection Of Senescence Associated Beta Galactosidase In Peripheral Blood Mononuclear Cells From Human Whole Blood Using C₁₂Fdg And Flow Cytometry	2/13/2021 6:00	Clinical Research-Clinical Research Methods	John Mitchell	Steadman Philippon Research Institute
Bounding The Implications Of Non-compliance In Orthopedic Randomized Controlled Trials	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Shaun Forbes	Brown University
Gait Variability As A Measure Of Cognitive Loading	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Jerome Hausselle	Oklahoma State University
Deconstructing The Minimum Clinically Important Difference (mcid)	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Janine Molino	Brown University
Identifying The Clinical Outcomes Measures To Include In An In Silico Clinical Trial	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Philippe Favre	Zimmer Biomet
Treatment Of Infected Nonunion Of The Lower Extremity With An Antibiotic Cement-Coated Intramedullary Rod: Case Series Of 38 Patients	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Justin Luis	Rutgers New Jersey Medical School

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V-gel Guided Intubation In Rabbits	2/13/2021 6:00	Clinical Research-Clinical Research Methods	Alessandra Fusco	University of Pennsylvania School of Veterinary Medicine
The Effect Of Surgical Invasion By Total Knee Arthroplasty On Intra-articular Nerve Growth Factor (ngf) Concentration	2/13/2021 6:00	Clinical Research-Observational Studies	tomohiro onodera	Hokkaido University
Deviations From Rotational Targets And Differences In Coverage Between Two Asymmetric Tibial Components After Calipered Kinematically Aligned Tka	2/13/2021 6:00	Clinical Research-Observational Studies	Alexander Nedopil	University of Würzburg
Weight Bearing CT Detects Early Changes In 3D Joint Space Width After Tibial Pilon Fractures Consistent With Post-traumatic Osteoarthritis	2/13/2021 6:00	Clinical Research-Observational Studies	Donald Anderson	University of Iowa
Firework Injuries To The Hand - An Epidemiological And Cost Analysis.	2/13/2021 6:00	Clinical Research-Observational Studies	Adam Gordon	The Ohio State University
New Clinical Evidence Supports The Effectiveness Of PEEK Interbody Fusion Devices With An Integrated Porous Titanium Coating For Spine Fusion Applications	2/13/2021 6:00	Clinical Research-Observational Studies	Hallie Murray	Tyber Medical
Factors Affecting Pelvis Position During Total Hip Arthoplasty In The Lateral Decubitus Position	2/13/2021 6:00	Clinical Research-Observational Studies	ZEYNEP SEREF-FERLENGEZ	Montefiore Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Clinical Application Of Virtual Mechanical Testing Measures Slow Fracture Healing In Patients With Comorbidities	2/13/2021 6:00	Clinical Research-Observational Studies	Hannah Dailey	Lehigh University
The Role Of Social Media In Clubfoot: Information Sharing And Social Support	2/13/2021 6:00	Clinical Research-Observational Studies	Gabriel Hanna	New Jersey Medical School
The Impact Of Injury Patterns On Burnout In Current Ncaa Student-athletes	2/13/2021 6:00	Clinical Research-Observational Studies	Nick Giusti	University of Kansas Medical Center
The Correct Insert Thickness Restores Maximal Internal-external Rotation Of A Medial Stabilized Posterior Cruciate Ligament Retaining Tka During Passive Flexion	2/13/2021 6:00	Clinical Research-Observational Studies	Alexander Nedopil	University of Würzburg
Firearm Injuries Of The Hand - National Trends, Causes, And Costs, 2009-2014.	2/13/2021 6:00	Clinical Research-Observational Studies	Adam Gordon	The Ohio State University
Declining Trend In Anti-osteoporotic Treatment, Despite A Rise In Dexa Screening Following “Sentinel” Distal Radius Fractures	2/13/2021 6:00	Clinical Research-Observational Studies	Adam Gordon	The Ohio State University
Patient Perceptions Of Covid-19 In Orthopaedic Practice	2/13/2021 6:00	Clinical Research-Observational Studies	Jillian Glasser	University Orthopedics Inc.
Opioid Use Patterns After Primary Total Knee Arthroplasty	2/13/2021 6:00	Clinical Research-Observational Studies	William Mihalko	University of Tennessee Health Science Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Increasing Vertical Ground Reaction Force Correlates To Concurrent Meniscal And Deep Cartilage Matrix Disruption Assessed With MRI UTE-T2* Following ACL Reconstruction	2/13/2021 6:00	Clinical Research-Observational Studies	Ashley Williams	Stanford University
Associations Between Radiographic Osteoarthritis, Lameness And Glutamate Signalling In Dogs With Cranial Cruciate Ligament Disease	2/13/2021 6:00	Clinical Research-Observational Studies	Joel Alves	Cardiff University
Obesity Increases Implant Failure Following Uncemented Total Hip Arthroplasty In Pediatric And Young Patients. A Short To Mid-term Retrospective Study	2/13/2021 6:00	Clinical Research-Observational Studies	Brendan Sweeney	College of Medicine, University of Central Florida
Growth Disturbance And Failure Rates Following Pediatric Anterior Cruciate Ligament Reconstruction	2/13/2021 6:00	Clinical Research-Observational Studies	Patrick Kroenung	College of Medicine, University of Central Florida
Surgical Site Infections In Orthopedic Oncology: Evaluating The Role Of The Plastic Surgeon	2/13/2021 6:00	Clinical Research-Observational Studies	Wilfrido Castillo	Rutgers- Robert Wood Johnson Medical School

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Effects Of Ct X-ray Voltage And Current On Hydroxyapatite Phantom Density Plugs In Scans Reconstructed With Standard And BonePlus Kernels	2/13/2021 6:00	Clinical Research-Observational Studies	Emily Cameron	Queens University
Hand Surgery Complications During Early Independent Practice: A Single Surgeon 5 Year Experience	2/13/2021 6:00	Clinical Research-Observational Studies	Adam Gordon	The Ohio State University
Risk Factors And Their Interactions For Osteonecrosis Of The Femoral Head: A Significant Biological Interaction Between Alcohol Intake And Smoking.	2/13/2021 6:00	Clinical Research-Observational Studies	Tetsuro Tani	Osaka University Graduate School of Medicine
Does Race Improve The Accuracy Of Models Predicting The Size Of TKA Femoral Components?	2/13/2021 6:00	Clinical Research-Observational Studies	Michael Langley	LSUHSC New Orleans
Telemedicine For Pediatric Orthopaedic Visits: Evaluating Usability And Satisfaction	2/13/2021 6:00	Clinical Research-Observational Studies	Gabriel Hanna	New Jersey Medical School
Analyzing The Trends And Variability In Total Procedural Volume And Hip Arthroscopy Of Orthopaedic Sports Medicine Fellows From 2011-2016.	2/13/2021 6:00	Clinical Research-Observational Studies	Adam Gordon	The Ohio State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Trends Of Hand And Upper Extremity Injuries Presenting To Us Emergency Departments: A 10 Year Neiss Database Analysis.	2/13/2021 6:00	Clinical Research-Observational Studies	Adam Gordon	The Ohio State University
Outcomes In Opioid Non-Naïve Patients Experiencing Isolated Diaphyseal Tibia Fractures Treated Operatively - Retrospective Study	2/13/2021 6:00	Clinical Research-Observational Studies	Elias Joseph	University at Buffalo, Jacobs School of Medicine and Biomedical Science
Emergency Action Planning In Kansas High Schools	2/13/2021 6:00	Clinical Research-Observational Studies	Riley Hedberg	University of Kansas Medical Center
Factors That Influence Patients' Recommendation Of Orthopaedic Surgeons: An Analysis Of A Popular Online Rating Website	2/13/2021 6:00	Clinical Research-Observational Studies	Justin Luis	Rutgers New Jersey Medical School
How The Reputation Of Orthopaedic Residency Programs Influences The Spine Surgery Fellowship Match Results	2/13/2021 6:00	Clinical Research-Observational Studies	Joshua Kaiser	University of Miami Miller School of Medicine
Two Year Patient Satisfaction Following Robotic Total Knee Arthroplasty	2/13/2021 6:00	Clinical Research-Observational Studies	Laura Scholl	Stryker
Medical Malpractice Trends In Foot And Ankle Surgery	2/13/2021 6:00	Clinical Research-Observational Studies	Akhil Sharma	Duke University Medical Center
Results Of Robotic-assisted Total Knee Arthroplasty At 3-year Follow-up	2/13/2021 6:00	Clinical Research-Observational Studies	Laura Scholl	Stryker

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Cost Analysis Of Medical Students Applying To Orthopaedic Surgery Residency: Implications For The 2020-2021 Application Cycle	2/13/2021 6:00	Clinical Research-Observational Studies	Adam Gordon	The Ohio State University
Understanding The Trends And Variability In Procedural Volume Of Orthopaedic Hand Surgery Fellows - An Analysis Of Acgme Case Log Data From 2011 To 2018.	2/13/2021 6:00	Clinical Research-Observational Studies	Adam Gordon	The Ohio State University
Early Outcomes In Robotic Assisted Total Hip Arthroplasty Patients With Functional Hip Positioning	2/13/2021 6:00	Clinical Research-Observational Studies	Laura Scholl	Stryker
Hip Fractures Before And During The Covid-19 Pandemic: Comparative Demographics And Outcomes	2/13/2021 6:00	Clinical Research-Observational Studies	Alireza Nazemi	Stony Brook University Hospital
Comparative Safety Of The Tfn-advanced (tfna) Proximal Femoral Nailing System Vs Comparator Nails: Findings From A Us Healthcare Database	2/13/2021 6:00	Clinical Research-Observational Studies	Jennifer Wood	Johnnson & Johnson Medical Devices
Immunohistochemical Detection Of Bone Morphogenetic Proteins In Human Induced Membrane.	2/13/2021 6:00	Clinical Research-Omics, Biomarkers and Genetics	Takahiro Oda	Department of Orthopaedic Surgery, Kobe University Graduate School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Senescent Cd3+ T-cells Are Associated With Biomarkers For Age Related Orthopaedic Decline	2/13/2021 6:00	Clinical Research-Omics, Biomarkers and Genetics	William Hambright	Steadman Philippon Research Institute
Genetic Variation In C7ORF76 Rs4727338 And Rs4342521 Associated With Musculoskeletal Phenotypes In Young Adults	2/13/2021 6:00	Clinical Research-Omics, Biomarkers and Genetics	Rachel Schwartz	The George Washington University
Genetic Variation In PPP6R3 And FGFR4 Associated With Bone Phenotypes In Young Adults	2/13/2021 6:00	Clinical Research-Omics, Biomarkers and Genetics	Kristina Pond	University of Kentucky College of Medicine
Variations In PIEZO1 Rs62048221 Associated With Strength And Anthropometric Measures In Young Adults	2/13/2021 6:00	Clinical Research-Omics, Biomarkers and Genetics	Muhammad El Shatanofy	The George Washington University
C7ORF76 Variants Associated With Bone Quality Measures In Young Adults	2/13/2021 6:00	Clinical Research-Omics, Biomarkers and Genetics	Amil Agarwal	The George Washington University
Characterization Of SNV And CNV Mutations In Breast Cancer Bone Metastases	2/13/2021 6:00	Clinical Research-Omics, Biomarkers and Genetics	Vaidehi Patel	University of Pittsburgh
Therapeutic Effects Of Oral Agmatine For Equine Lameness And Gastric Ulceration	2/13/2021 6:00	Clinical Research-Randomized Studies	Takashi Taguchi	Louisiana State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Viable Disc Tissue Allograft Supplementation In The Treatment Of Degenerated Intervertebral Discs The One Year Results Of A Randomized Control Trial	2/13/2021 6:00	Clinical Research-Randomized Studies	John Burkus	Hughston Clinic
The Pericapsular Nerve Group (peng) Block Provides Improved Analgesia Compared To The Femoral Nerve Block In Neck Of Femur Surgery: A Single-centre Double-blinded Randomized Controlled Trial.	2/13/2021 6:00	Clinical Research-Randomized Studies	Craig Morrison	Flinders Medical Centre
Traumatic Peroneal Nerve Injuries: A Systematic Review	2/13/2021 6:00	Clinical Research-Systematic Review/Meta-analyses	Jack Ayres	University of Kansas School of Medicine
Accuracy Of Robotic-assisted Resection Angles For Total Knee Arthroplasty	2/13/2021 6:00	Clinical Research-Systematic Review/Meta-analyses	Harold Cates	Tennessee Orthopaedic Clinics
Comparison Between Vertebroplasty With High Or Low Viscosity Cement Augmentation And Kyphoplasty In Cement Leakage Rate For Patients With Osteoporotic Vertebral Compression Fracture: A Systematic Review And Network Meta-analysis.	2/13/2021 6:00	Clinical Research-Systematic Review/Meta-analyses	Wei Cheng Chen	Chang Gung Memorial Hospital
Systematic Review Of Methods To Calculate Tibiotalar And Subtalar Kinematics	2/13/2021 6:00	Clinical Research-Systematic Review/Meta-analyses	Karen Kruger	Marquette University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The Power Of Placebo: Differential Effects In Interventional Trials For Knee Osteoarthritis	2/13/2021 6:00	Clinical Research-Systematic Review/Meta-analyses	Johanna Borst	UC San Diego
The Relation Between The Gut Microbiome And Osteoarthritis: A Systematic Review Of Literature	2/13/2021 6:00	Clinical Research-Systematic Review/Meta-analyses	Emanuele Chisari	Rothman Orthopaedic Institute
Emergency Action Planning In School-based Athletics: A Systematic Review	2/13/2021 6:00	Clinical Research-Systematic Review/Meta-analyses	Riley Hedberg	University of Kansas Medical Center
Sex Differences In The Outcome Of Hip Arthroscopy For Femoroacetabular Impingement: A Systematic Review And Meta-analysis	2/13/2021 6:00	Clinical Research-Systematic Review/Meta-analyses	Thomas McCormack	Kansas University Medical Center
The Effect Of Delayed Surgical Debridement In The Management Of Open Tibial Fractures: A Systematic Review And Meta-analysis	2/13/2021 6:00	Clinical Research-Systematic Review/Meta-analyses	Marios Nicolaides	Barts and The London, Queen Mary University of London
Diagnosing Medial Ankle Instability With Gravity Stress, Weight-bearing, And External Rotation Stress Ultrasonography - A Cadaveric Study	2/13/2021 6:00	Foot and Ankle-Diagnosis and Imaging	Jirawat Saengsin	Massachusetts General Hospital
A Comparison Of Portable Ultrasonography And The Fluoroscopy For Evaluating Medial Ankle Instability - A Cadaveric Study	2/13/2021 6:00	Foot and Ankle-Diagnosis and Imaging	Jirawat Saengsin	Massachusetts General Hospital

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Weightbearing CT Can Effectively Diagnose Lisfranc Instability	2/13/2021 6:00	Foot and Ankle-Diagnosis and Imaging	Rohan Bhimani	Massachusetts General Hospital
Micro-ct Analysis Of Bone Mineral Density In The Lisfranc Complex	2/13/2021 6:00	Foot and Ankle-Diagnosis and Imaging	Melissa Requist	University of Utah
Use Of Portable Ultrasonography For The Diagnosis Of Lateral Ankle Instability	2/13/2021 6:00	Foot and Ankle-Diagnosis and Imaging	Lorena Bejarano-Pineda	Massachusetts General Hospital
Joint Coverage, Distance And Congruency Analysis Of The Talonavicular And Calcaneocuboid Joints	2/13/2021 6:00	Foot and Ankle-Diagnosis and Imaging	Andrew Peterson	University of Utah
Three Dimensional Weightbearing CT (WBCT) Assessment Of First Metatarsal Osteotomies	2/13/2021 6:00	Foot and Ankle-Diagnosis and Imaging	Jarrett D. Cain	University of Pittsburgh School of Medicine
Contamination Profile Of The Mini C-arm Fluoroscopy Unit In Orthopaedic Surgery	2/13/2021 6:00	Foot and Ankle-Diagnosis and Imaging	Kaveh Momenzadeh	Harvard - Beth Israel Deaconess Medical Center
Dynamic Portable Ultrasound Cutoff Values For Diagnosing Medial Ankle Instability- A Cadaveric Study	2/13/2021 6:00	Foot and Ankle-Diagnosis and Imaging	Jirawat Saengsin	Massachusetts General Hospital
Dynamic Assessment Of The Impact Of Syndesmotic Injury On Lateral Ankle Stability Using Portable Ultrasound	2/13/2021 6:00	Foot and Ankle-Diagnosis and Imaging	Rohan Bhimani	Massachusetts General Hospital
Anatomic And Radiographic Investigation Of The Posterior Border Of Syndesmosis	2/13/2021 6:00	Foot and Ankle-Diagnosis and Imaging	Caroline Williams	Harvard - Beth Israel Deaconess Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Talus Avascular Necrosis: Demographics, Epidemiology And Activity Level	2/13/2021 6:00	Foot and Ankle-Disorders	Akhil Sharma	Duke University Medical Center
Epidemiology Of Ankle Sprain In The Military: A Systematic Review Of Literature	2/13/2021 6:00	Foot and Ankle-Disorders	Allison Goodrich	University of Kansas Medical Center
Outcomes And Return To Play Following Unique Mini-open Achilles Repair	2/13/2021 6:00	Foot and Ankle-Disorders	Akhil Sharma	Duke University Medical Center
Male-Female Differences In Coupled Knee And Hindfoot Kinematics During Gait Revealed Using Dynamic Biplane Radiography	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	Maria Munsch	University of Pittsburgh
Talocalcaneal Interosseous Ligament Provides Greatest Talar Stability In The Sagittal Plane	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	Michelle Smith	University off Rochester
Influence Of Primary Arthrodesis Of Tarsometatarsal Joint On Gait Kinematics In Cadaveric Simulation	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	Jeffrey Hoffman	Hospital for Special Surgery
Surrogate Leg Design Using A Self-adaptive Differential Evolutionary Algorithm	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	Jerome Hausselle	Oklahoma State University
The Effect Of Footwear On Stance Phase Hindfoot Range Of Motion: A Cadaveric Marker-based Biplane Fluoroscopy Pilot Study	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	Jing-Sheng Li	RR&D Center for Limb Loss and MoBility

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Is Load Control Necessary To Produce Physiological AP Displacement And Axial Rotation In Wear Testing Of Total Ankle Replacements?	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	Colin McCarty	The J. Vernon Luck, Sr., M.D. Orthopaedic Research Center, Orthopaedic Institute for Children in Alliance with UCLA
Musculoskeletal Modeling For Prescribing A Custom Dynamic Orthosis That Mitigates Post-traumatic Osteoarthritis Risk After Intra-articular Fracture	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	Molly Corlett	The University of Iowa
Evaluation Of Toe Flexor Muscle Activity During Toe Flexion With Or Without Interphalangeal Joint Flexion Using Ultrasound Shear Wave Elastography	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	Kento Hirota	Sapporo Medical University
Significance Of Stress Shielding As A Potential Pathogenic Determinant Of Osteolysis In Tibia And Talus With Taa	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	Seoyeong Kim	Sejong University
Peritalar Kinematics Restored With Combined Subtalar Fusion And Medial Ligament Reconstruction In A Simulated Advance Adult Acquired Flatfoot Deformity Model	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	Nahom Tecle	University of Rochester
Optimal Parameters To Quantify Pregnancy And Footwear Effects On Postural Stability	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	Jerome Hausselle	Oklahoma State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The Effect Of Artificial Ageing On The Wear Of A Total Ankle Arthroplasty	2/13/2021 6:00	Foot and Ankle-Kinematics/Kinetics	James Hopwood	Institute of Medical and Biological Engineering, University of Leeds
Sex-Specific Differences Following Lateral Ankle Ligament Repair	2/13/2021 6:00	Foot and Ankle-Operative Treatment	Allison Goodrich	University of Kansas Medical Center
Group B Streptococcus Infected Tenosynovitis In Diabetic Foot Ulcers.	2/13/2021 6:00	Foot and Ankle-Operative Treatment	Olivia Waldman	University of Rochester
Computational Comparison Of Center-center And Centroid Axes In Syndesmosis Fixation	2/13/2021 6:00	Foot and Ankle-Operative Treatment	Nicholas J. Jackson	University of Florida
Biomechanical Evaluation Of Fibertape Repair Techniques For Ligamentous Lisfranc Injury In A Cadaveric Model	2/13/2021 6:00	Foot and Ankle-Operative Treatment	Zachary Koroneos	Penn State College of Medicine
Outcomes For Metal Spacers In Treating Hind Foot Bony Defects	2/13/2021 6:00	Foot and Ankle-Operative Treatment	Soroush Kazemi	Department of Orthopaedic Surgery, University of California Davis
Kinematics Of Ultrasound-guided Anterior Talofibular Ligament Repair Of The Ankle Joint	2/13/2021 6:00	Foot and Ankle-Operative Treatment	Soichi Hattori	University of Pittsburgh
Effect Of Bone Quality And Leg Depth On The Biomechanical Performance Of A Nitinol Staple	2/13/2021 6:00	Foot and Ankle-Operative Treatment	David Safranski	MedShape, Inc.
Sural Nerve Harvest For Upper-extremity Nerve Reconstruction: A Patient's Perspective	2/13/2021 6:00	Foot and Ankle-Operative Treatment	Deana Mercer	University of New Mexico

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Real-world Objective Upper Extremity Motion Evaluation Method Using A Long-acting Wearable Small Motion	2/13/2021 6:00	Hand and Wrist-Biomechanics	Tomoyuki Kuroiwa	Department of Orthopaedic and Spinal Surgery, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University
Contact Pattern Of A Total Wrist Arthroplasty Design In Range-of-motion Tasks: In Vivo Study	2/13/2021 6:00	Hand and Wrist-Biomechanics	Bardiya Akhbari	Brown University
Fused With Motion: A Biomechanical Comparison Of Dart Throw Motions After Partial Wrist Fusions	2/13/2021 6:00	Hand and Wrist-Biomechanics	Frederick Werner	SUNY Upstate Medical University
Study Of Fixation Strength Of Phalangeal Osteosynthesis Using Kirschner Wire - Mechanical Evaluation By Finite Element Analysis	2/13/2021 6:00	Hand and Wrist-Biomechanics	Yukinori Hayashi	JICHI MEDICAL UNIVERSITY
The Development Of Image-based Biomarkers To Elucidate Mechanisms Underpinning Pain Post Wrist Fracture	2/13/2021 6:00	Hand and Wrist-Biomechanics	Lauren Straatman	Western University
A New Quantitative Evaluation System For Distal Radioulnar Joint Instability Using Three-dimensional Electromagnetic Sensor	2/13/2021 6:00	Hand and Wrist-Biomechanics	Shintaro Mukohara	Kobe University Graduate School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Effect Of Musculoligamentous Junction Location On Biomechanical Interaction Between The Thenar Muscles And Transverse Carpal Ligament — A Finite Element Study	2/13/2021 6:00	Hand and Wrist-Biomechanics	Zong-Ming Li	University of Arizona
First Carpometacarpal Joint Motion And Proximal Migration Of The First Metacarpal After Tensioned Suture Device Suspensionplasty Compared To Trapeziectomy: A Biomechanical Cadaver Study	2/13/2021 6:00	Hand and Wrist-Biomechanics	Frederick Werner	SUNY Upstate Medical University
Dynamic Analysis Of Triangular Fibrocartilage Complex By Using Ultrasonography Images	2/13/2021 6:00	Hand and Wrist-Biomechanics	Issei Shinohara	Kobe University Graduate School of Medicine
Fossa Specific Plating In Non-articular Vs 3-fragment Articular Distal Radius Fractures	2/13/2021 6:00	Hand and Wrist-Biomechanics	Deana Mercer	University of New Mexico
The Effect Of Volar Scapholunate Tears On Carpal Kinematics	2/13/2021 6:00	Hand and Wrist-Biomechanics	Sydney Robinson	Western University
Evaluation Of A Ti-6al-4v 2.4mm / 3.5mm Volar Distal Radius Plate Locking Mechanisms In A Construct Fatigue Model	2/13/2021 6:00	Hand and Wrist-Biomechanics	Egleide Elenes	Smith + Nephew

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Validation Of A Handprint For Clinical Evaluation Of Dupuytren'S Contracture	2/13/2021 6:00	Hand and Wrist-Imaging	Takashi Ajiki	Ishibashi General Hospital
Microvascular Neural Blood Flow Assessment For Chronic Nerve Compression Injury Mouse Model By Fluorescein Angiography.	2/13/2021 6:00	Hand and Wrist-Imaging	Shunpei Hama	Osaka City University Graduate School of Medicine
Minimal Detectable Change In The Assessment Of Distal Radioulnar Joint Stability Using Ultrasonography	2/13/2021 6:00	Hand and Wrist-Imaging	Hiroshi Yuine	Ibaraki Prefectural University of Health Sciences
Three-dimensional Carpal Arch Morphological Analysis Using Robot Assisted Ultrasonography	2/13/2021 6:00	Hand and Wrist-Imaging	Zong-Ming Li	University of Arizona
Development Of 3d Bone Position Estimation System Based On Fluoroscopic Image	2/13/2021 6:00	Hand and Wrist-Imaging	Yuichi Yoshii	Tokyo Medical University Ibaraki Medical Center
Examination Of Radiocarpal Vs Midcarpal Contribution To Flexion Motion Of The Wrist Using 4 Dimensional Computed Tomography	2/13/2021 6:00	Hand and Wrist-Imaging	Elizabeth Norman	University of Western
In-vivo Site-specific Cartilage Wear In Thumb Carpal-metacarpal Osteoarthritis	2/13/2021 6:00	Hand and Wrist-Osteoarthritis	Amy Morton	Alpert Medical School of Brown University and Rhode Island Hospital
3d Structural Analysis Of Repurposing Anti-viral Drugs For Treatment Of Osteoarthritis	2/13/2021 6:00	Hand and Wrist-Osteoarthritis	Zhen Qiao	Brown University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Morphological Changes Of The Carpometacarpal Joint Associated With Patient Reported Outcome Measures In Patients With Early Carpometacarpal Osteoarthritis Over A 6-year Period	2/13/2021 6:00	Hand and Wrist-Osteoarthritis	Edgar Garcia-Lopez	The Warren Alpert Medical School of Brown University and Rhode Island Hospital
Using Google Trends To Track Healthcare Use For Hand Arthritis - What Words Are Patients Searching?	2/13/2021 6:00	Hand and Wrist-Osteoarthritis	Samuel Cohen	Stanford University
Effects Of Premixing Betamethasone And Lidocaine On Chondrocyte Inflammation In An In Vitro Model	2/13/2021 6:00	Hand and Wrist-Surgical and Therapeutic Innovation	Camille Pinpin	Donald and Barbara Zucker School of Medicine at Hofstra/Northwell
Reproducibility Of Osteosynthesis Of Distal Radius Fracture Using Image Fusion Systemfor 3d Preoperative Plan And Fluoroscopy	2/13/2021 6:00	Hand and Wrist-Surgical and Therapeutic Innovation	Yuichi Yoshii	Tokyo Medical University Ibaraki Medical Center
Indinavir Accelerates Rate Of Neuromuscular Recovery After Sciatic Nerve Transection And Repair In Rats	2/13/2021 6:00	Hand and Wrist-Surgical and Therapeutic Innovation	Mikhail Gurevich	Renaissance School of Medicine MSTP
Accuracy Of Injections Of The First Carpometacarpal Joint, Triangular Fibrocartilage Complex, And Elbow Joint: A Cadaveric Study	2/13/2021 6:00	Hand and Wrist-Surgical and Therapeutic Innovation	Evan Johnson	University of Central Florida College of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Parallel Pins Encourage Midcarpal Settling In Scaphoid Excision Four Corner Fusion Patients.	2/13/2021 6:00	Hand and Wrist-Surgical and Therapeutic Innovation	Sumail Bhogal	University of Pittsburgh Medical Center
Does Anti-adhesion Gel Improve Early Clinical Outcome And Median Nerve Mobility In Carpal Tunnel Release?	2/13/2021 6:00	Hand and Wrist-Surgical and Therapeutic Innovation	I-Ning Lo	Taipei Veterans General Hospital
Risk Of Carpal Tunnel Syndrome After Bilateral Oophorectomy: A Population-based Cohort Study	2/13/2021 6:00	Hand and Wrist-Tendon, Ligament and Neuromuscular Disorders	Julia Starlinger	Mayo Clinic
Ultrasound Localization Of The Median Nerve And Flexor Pollicis Longus At The Carpal Tunnel Inlet In Patients With And Without Carpal Tunnel Syndrome	2/13/2021 6:00	Hand and Wrist-Tendon, Ligament and Neuromuscular Disorders	Hannah Lee	University of Pennsylvania
Ultrasound Shear Wave Elastography Of Thenar Muscles In Patients With Carpal Tunnel Syndrome: A Pilot Study	2/13/2021 6:00	Hand and Wrist-Tendon, Ligament and Neuromuscular Disorders	Julia Starlinger	Mayo Clinic
Further Evidence That Platelet-rich Plasma Promotes Peripheral Nerve Regeneration Through Enhancement Of Schwann Cells Functioning	2/13/2021 6:00	Hand and Wrist-Tendon, Ligament and Neuromuscular Disorders	Seiji Sawai	Kyoto Prefectural University of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Positional Relationships Between The Morphologic Origins Of The Lateral Center-edge Angle And Three-dimensional Acetabular Coverage	2/13/2021 6:00	Hip-Diagnostics	Tohru Irie	Hokkaido University
Relationship Between PI And Hip Osteoarthritis	2/13/2021 6:00	Hip-Diagnostics	Makoto Iwasa	Department of Orthopaedic Medical Engineering, Osaka University Graduate School of Medicine
Evaluating Hip Orthopaedic Implants In Static Magnetic Resonance Image Environment: In Vitro Evaluation Of Displacement And Torque	2/13/2021 6:00	Hip-Diagnostics	Raga Rajaravivarma	Stryker
Slipped Capital Femoral Epiphysis Acetabular Orientation And Shape: A Three-dimensional CT Study	2/13/2021 6:00	Hip-Diagnostics	Conner Paez	University of California San Diego
Machine Learning To Predict Length Of Stay For Revision Hip Arthroplasty	2/13/2021 6:00	Hip-Diagnostics	Keir Johnson	Division of Applied Mathematics, Brown University
Quantification Of The Influence Of Leg Orientation During Image Acquisition On Femoral Torsion	2/13/2021 6:00	Hip-Diagnostics	Floor Lambers	Stryker Sports Medicine
Canine Coxofemoral Joint Extension Increases Radiographic Joint Volume Compared To Joint Flexion	2/13/2021 6:00	Hip-Diagnostics	Catherine Takawira	Louisiana State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Three-dimensional Acetabular Coverage: Definition Of The Normal Range	2/13/2021 6:00	Hip-Diagnostics	Floor Lambers	Stryker Sports Medicine
Novel Three-dimensional Acetabular Dysplasia Classification Based On The Normal Vector Of The Acetabular Rim	2/13/2021 6:00	Hip-Diagnostics	Tohru Irie	Hokkaido University
Acoustic Emission To Monitor Hip Implant Well-function: A Computational Approach To Overcome The Impact Of Surrounding Tissue Thickness	2/13/2021 6:00	Hip-Diagnostics	Remya Ampadi Ramachandran	University of Illinois at Chicago
Inter-rater Reliability Of The Prone Apprehension Relocation Test (PART)	2/13/2021 6:00	Hip-Diagnostics	Lauren Watchmaker	University of Wisconsin-Madison
Relationship Between Self-reported Pain And Functional Outcomes In Femoroacetabular Impingement And Developmental Dysplasia Of The Hip	2/13/2021 6:00	Hip-Diagnostics	Brandon Nunley	The University of Texas at Dallas
CoCrMo Wear Nanoparticle Induced Variation In Cytokine Expression Profile By Human PBMC Derived Macrophages	2/13/2021 6:00	Hip-Growth, Development and Aging	Oba Akinfosile	University of Illinois, College of Medicine at Rockford

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Surgically-induced Femoroacetabular Impingement Type Deformity In An Immature Rabbit Model	2/13/2021 6:00	Hip-Growth, Development and Aging	Cecilia Pascual-Garrido	Washington University School of Medicine
Consistency Of Metaphyseal Shape In Portuguese Water Dogs: Implications For Femoral Component Design In THA	2/13/2021 6:00	Hip-Growth, Development and Aging	John Skedros	University of Utah
Differences In Epiphyseal Tubercle But Not Peripheral Cupping Between Slipped Capital Femoral Epiphysis Compared To The Healthy Contralateral Side	2/13/2021 6:00	Hip-Growth, Development and Aging	Shayan Hosseinzadeh	Boston Children's Hospital
Comparison Of A Retrograde Femoral Nail With Screws, Condylar Nuts, And A Lateral Multi-hole Washer Using Bone Strain To Predict Cutout	2/13/2021 6:00	Hip-Injury and Healing	Dana Coombs	DePuy Synthes
Detection Of Inflammasome And Pyroptosis Activation Markers In Synovial Tissues Of Patients With Rapidly Destructive Coxopathy: An Insight Into Pathophysiology Of Disease	2/13/2021 6:00	Hip-Injury and Healing	Shunichi Yokota	Hokkaido University
Characterization Of Cell-specific Biomarker Profiles For Osteoarthritic Hips	2/13/2021 6:00	Hip-Injury and Healing	Preston Wolfe	University of Missouri Columbia

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Novel Mouse Model For Periarticular Heterotopic Ossification Of The Hip	2/13/2021 6:00	Hip-Injury and Healing	Stefano Negri	Johns Hopkins University
Differences In Subtrochanteric And Diaphyseal Atypical Femoral Fractures	2/13/2021 6:00	Hip-Injury and Healing	Yuya Takakubo	Yamagata University Faculty of Medicine
Differences In Incidence Of Osteonecrosis After Intraarticular Hip Injection Between Corticosteroid Type And Dose	2/13/2021 6:00	Hip-Injury and Healing	Nathan Varady	Massachusetts General Hospital
Effect Of Blocking Screw On Bone-nail Constructs In Unstable Intertrochanteric Fracture Models Fixed Using A Intramedullary Nail	2/13/2021 6:00	Hip-Injury and Healing	SEOGHYUN OH	Inje University
Perioperative Pain, Medication Utilization, Mid-term Functional Outcomes, And Safety For Patients Undergoing Arthroscopic Acetabular Labral Repair With And Without Bone Marrow Aspirate Concentrate Application	2/13/2021 6:00	Hip-Injury and Healing	Michael Kucharik	Massachusetts General Hospital
Correlation Of Hip Labral Tears And Radiographic Measurements	2/13/2021 6:00	Hip-Injury and Healing	Terrul Ratcliff	University of Texas Southwestern Medical Center
Adaptive Muscle Hypertrophy In Abductors Of The Pre-arthritic Dysplastic Hip	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Cecilia Pascual-Garrido	Washington University School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Modifiable Functional Factors Associated With Reduced Physical Activity In Older Women With Hip Osteoarthritis	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Kharma Foucher	University of Illinois at Chicago
Development And Validation Of An Elastic Foundation Musculoskeletal Hip Contact Model	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Brecca Gaffney	Washington University in St. Louis School of Medicine
The Influence Of Femoral Version Deformity On Joint Reaction Forces In Dysplastic Hips	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Molly Shepherd	Washington University in St. Louis
Influencing Factor For Articular Surface Irregularity Of The Necrotic Femoral Head With Mild Subchondral Collapse	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Noriko Yamamoto	Kyushu University
Hip Range Of Motion, Generalized Joint Hypermobility, And Soft Tissue And Bony Morphology In Femoroacetabular Impingement Syndrome	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Andrea Spiker	University of Wisconsin - Madison
Assessment Of Femoral Head Translation To Diagnose Hip Microinstability	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Ethan Ruh	University of Pittsburgh
Zirconia-Toughened Alumina-Ti6Al4V Composites For Load-bearing Femoral Heads	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Jose Avila	Washington State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The Effects Of Three-dimensional Pelvic Dynamics On Hip Range Of Motion In Cam-Type Femoroacetabular Impingement - A Computer Simulation Analysis -	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Hideki Honda	Yokohama City University Medical Center
3-D Acetabular Morphology Of The Neuromuscular Hip: Implications For Pre-Operative Planning	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Samuel Baird	University of California San Diego
Considerations For Restoring Center Of Rotation In The Portuguese Water Dog Total Hip Arthroplasty Inthe Context Of The Canine As A Translational Model	2/13/2021 6:00	Hip-Structure, Function and Mechanics	James Marshall	University of Utah
Optimal Leg Stiffness And Touchdown Angle For Running Under Hypogravity On Mars And The Moon	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Jerome Hausselle	Oklahoma State University
Comparison Of Periprosthetic BMD Between Zweymuller Type Stem And Taper Wedge Type Stem According To Femoral Canal Shape	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Akira Morita	Yokohama City University, Yokohama, Japan
Does Patient-specific Functional Pelvic Tilt Affect Joint Contact Pressure In Hip Dysplasia?	2/13/2021 6:00	Hip-Structure, Function and Mechanics	KENJI KITAMURA	Graduate School of Medical Sciences, Kyushu University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Measurement Of Acetabular Labral Blood Flow Using Laser Doppler Flowmetry Before And After Arthroscopic Labral Repair	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Michael Kucharik	Massachusetts General Hospital
Increased Gluteus Maximus Size 6 Months Post-Anterior Cruciate Ligament Reconstruction Suggests A Compensatory Response For Persistent Quadriceps Weakness	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Ryan Korlewitz	Michigan State University
Full Body Motion Capture In Ovine Models For Orthopedics Research	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Aaron Henry	Texas A&M University
Effect Of Compliance On Femoral Head And Stem Taper Primary Stability In THA	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Stephen Swope	DePuy Synthes
The Effects Of Total Hip Arthroplasty On Static Spinopelvic Parameters In Patients With Hip-Spine Syndrome	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Christopher Como	University of Pittsburgh
Gait And Range Of Motion Analysis In Femoroacetabular Impingement And Acetabular Dysplasia: Distinguishing Hip Pathology With Gait Pathomechanics	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Jason Lin	University of Texas Southwestern Medical School

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Differences In 3D Functional Pelvic Orientation Between Static And Dynamic Activities In THA	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Vasiliki Kefala	University of Denver
Patients With Unilateral Abductor Tears Demonstrate Reduced Sagittal And Frontal Plane Hip Joint Range Of Motion During Gait	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Alejandro Espinoza Orias	Rush University Medical Center
Novel Method To Evaluate The Effect Of Stem Design On The Micromotion Of Hip Stems Utilizing Digital Image Correlation	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Gregg Schmidig	Stryker Orthopaedics
Attachment Point Optimization For A Dynamic Hip Stabilization Device	2/13/2021 6:00	Hip-Structure, Function and Mechanics	Kevin Bell	University of Pittsburgh
Finite Element Evaluation Of The Femoral Neck System As A Prophylactic Fixation To Prevent Contralateral Hip Fracture	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Julia Moulton	Quinnipiac University, Frank H. Netter MD School of Medicine
Predictors Of Adverse Local Tissue Reaction In A High-Risk Population	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Matthew Snyder	University of Pittsburgh
Improving The Accuracy Of Acetabular Fragment Reorientation In A Computer-navigated Rotational Acetabular Osteotomy By Fiducial Placement Method	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Masatoshi OBA	Yokohama City University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Finite Element Analysis Of Cannulated Screws As Prophylactic Intervention For Femoral Fracture	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Brian Rhee	Yale School of Medicine
A Biomechanical Comparison Of Two Fixation Methods For Unstable Lateral Compression Pelvic Ring Injuries	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Patrick Schimoler	Allegheny General Hospital
Effect Of Capsulotomy Incision Pattern And Repair On Translation Of The Femoral Head	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Emma Donnelly	Western University
Statistical Shape Modeling And Contralateral Mirroring For Pelvic Model Generation	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Praveen Krishna	University of Melbourne
Pelvic Tilt As A Pre-operative Predictor Of Patient Outcomes In Hip Preservation	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Abhinav Thummala	UT Southwestern Medical Center
Sagittal Plane Dynamic Pelvis Range Of Motion During A Single-leg Squat Is Associated With Amount Of Bone Resected During Femoral Osteochondroplasty For Cam-type Femoroacetabular Impingement Syndrome	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Alejandro Espinoza Orias	Rush University Medical Center
Minimum 2-year Outcomes Of All-arthroscopic Capsular Autograft Labral Reconstruction	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Michael Kucharik	Massachusetts General Hospital

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Aspirin Is A Good Prophylaxis Option For Venous Thromboembolism In Patients With Femoral Neck Fracture Undergoing Arthroplasty	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Emanuele Chisari	Rothman Orthopaedic Institute
Comparing Post-operative Leg Length Discrepancy And Femoral Offset Using Two Different Surgical Approaches For Hemiarthroplasty Of The Hip	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Matthew Coon	Ascension Macomb-Oakland Hospital
Accuracy Of Limb Length And Hip Offset Measurements With A Custom-made Fluoroscopic Grid Used In Anterior Approach Total Hip Arthroplasty	2/13/2021 6:00	Hip-Surgical and Non-Surgical Interventions	Ross Doehrmann	Ascension St. John Hospital
Patient-specific Decreases In Circulating Cytokines Are Associated With Lower Pain After Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Zohaib Lakhani	LSUHSC
Kinematic Performance Of Medial Pivot Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Landon Hamilton	University of Denver
Survivorship Of Total Knee Arthroplasty Following High Tibial Or Distal Femoral Osteotomy: A Retrospective Case-control Study	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Mary Bayers-Thering	Kaleida Health, SUNY Buffalo

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Unleashing The Power Of Multimodal Imaging To Assess Cell Survival In Tissues Of The Osteoarthritic Hip	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Melissa Knothe Tate	University of New South Wales
Utilizing Artificial Neural Networks For Predicting Patient Reported Outcome Measures In Primary Total Joint Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Dual Mobility Total Hip Arthroplasty In Obese Patients: Mid-term Follow Up	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Geoffrey Westrich	Hospital for Special Surgery
Low-dose Aspirin Is Associated With Decreased Incidence Of Heterotopic Ossification In Total Hip Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Duncan Van Nest	Rothman Orthopaedic Institute
Risk Factors For Discharge To A Non-home Destination And Reoperation Following Outpatient Total Hip Arthroplasty (tha) In Medicare Eligible Patients	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Adam Gordon	The Ohio State University
Pericapsular Nerve Group Block In Total Hip Arthroplasty Reduces Peri-operative Complications	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Nicholas Newcomb	UQ-Ochsner Clinical School
Impact Of Surgical Approach On Total Hip Arthroplasty Outcome With A Modern Tapered Wedge Stem	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Wen Fan	Exactech Inc

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Early Vs. Late Manipulation Following TKA- Surgical Complications And Revisions	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Jillian Glasser	University Orthopedics Inc.
Chronic Obstructive Pulmonary Disease Increases Complications, Revisions, And Opioid Use In Patients Undergoing Total Hip Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Jillian Glasser	University Orthopedics Inc.
A Short Stem Has Similar Postoperative Outcomes Compared To Other Short Stems In Total Hip Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Clay Hillyard	MicroPort Orthopedics, Inc.
Reducing Acute Hospitalization Length Of Stay After Total Knee Arthroplasty: A Quality Improvement Study	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Jesse Wolfstadt	Mount Sinai Hospital
Opioid Use In Revision Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Christopher Holland	UC Davis Health
The Glove-gown Interface: Methods To Inhibit A Potential Source Of Surgical Contamination	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Philip Noble	Institute of Orthopaedic Research & Education
Increased Congruency TKA Inserts Show Worse Outcomes And Pain	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Jillian Glasser	University Orthopedics Inc.
Smoking Relapse Following Total Knee Arthroplasty (TKA) Surgery	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	William Mihalko	University of Tennessee Health Science Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Patient Perceptions Of The Effect Of Increased Wait Times For Knee And Hip Arthroplasty Due To Covid-19	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Janie Wilson	McMaster University
Effects Of Prior Knee Surgery On The Perioperative Outcomes Of Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	ZEYNEP SEREF-FERLENGEZ	Montefiore Medical Center
Comparing Sex Specific Outcomes Following Medial Patellofemoral Reconstruction For Patella Instability: A Systematic Review	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Bryan Vopat	University of Kansas SOM
Custom-designed Total Knee Arthroplasty Is Cost-effectiveness In Comparison To A Standard Implant	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Navin Fernando	University of Washington
I-transfuse Audit (intraoperative Tranexamic Acid For Use In Orthopaedic Surgery)	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Vikas Patel	University of Toronto
Chronic Obstructive Pulmonary Disease Is Associated With Prolonged Opiate Use, Increased Short-term Complications And The Need For Revision Surgery Following Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Nicholas Lemme	Brown University, Warren Alpert School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Short-term Outcome Of Total Hip Replacement In Obese And Non-obese Patients With A Short Neck Preserving Stem	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Wen Fan	Exactech Inc
The Change In Ratio Of Patients Who Underwent Total Hip Arthroplasty For The Osteonecrosis Of Femoral Head After Bone Marrow Transplantation	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Keun Young Choi	Seoul St. Mary's Hospital, College of Medicine,
Morbid Obesity Does Not Increase Risk Of Return To Operating Room In Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	ZEYNEP SEREF-FERLENGEZ	Montefiore Medical Center
Sarcopenic Obesity And Early Outcomes After Total Knee Arthroplasty: A Preliminary Evaluation	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Kristine Godziuk	University of Alberta
Force Characterization Of Soft Tissues In The Post-TKR Knee During Activities Of Daily Living	2/13/2021 6:00	Hip and Knee Arthroplasty-Clinical Outcomes	Liam Montgomery	University of Western Ontario
The Utility Of Bioimpedance Analysis In Total Joint Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Michael Marinier	University of Iowa
What Is The Impact Of Body Mass Index Cutoffs On Total Hip Arthroplasty Complications?	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	David DeMik	University of Iowa
LepR+ Cells Produce Peri-implant Fibrotic Tissue In Aseptic Loosening Caused By Initial Instability	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Juan Lopez	Weill Cornell Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
CX3CR1+CD9+ Macrophages Accumulate In Peri-implant Tissue During Fibrotic Osseointegration Failure	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Fei SHU	Hospital for Special Surgery
Comparing The Efficacy Of Irrigation Solutions On Staphylococcal Biofilm Formed On Arthroplasty Surfaces	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Ajay Premkumar	HSS
Bioimpedance Analysis Of Whole-body Phase Angle In Patients Undergoing Total Joint Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Michael Marinier	University of Iowa
Are Corticosteroid Injections Of The Hip Associated With Increased Risk Of Osteonecrosis?	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Nathan Varady	Massachusetts General Hospital
Has Removal From The Inpatient Only List Increased Complications After Total Knee Arthroplasty?	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	David DeMik	University of Iowa
Does Outpatient Surgery Increase Early Complications After Total Hip Arthroplasty?	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	David DeMik	University of Iowa
Delayed Culture Results After Hip And Knee Revision Results In Delayed Time To Definitive Antimicrobial Treatment	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Samuel Clarkson	Rothman Orthopaedic Institute
Emergence Of Antibiotic Resistance During Two-stage Revision For Periprosthetic Joint Infection	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Leanne Ludwick	Rothman Orthopaedic Institute

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Does Extended Oral Antibiotic Prophylaxis Following Aseptic Revision Hip And Knee Arthroplasty Minimize The Risk Of Periprosthetic Joint Infection?	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Christopher Carender	University of Iowa
Radiographic Predictors Of The Difficulty In Performing Thr Via Direct Anterior Approach	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Philip Noble	Institute of Orthopaedic Research & Education
Use Of Antibiotic-impregnated Hydroxyapatite For Infection After Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Masahiro Hasegawa	Mie University Graduate School of Medicine
Novel Technique For Treatment Of Patellar Instability After Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Nickolas Van Roekel	University at Buffalo
Do Preoperative Radiographs Predict Optimal Treatment Of Vancouver B Fractures?	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Philip Noble	Institute of Orthopaedic Research & Education
Usage Of A Point Of Service Rapid Visualization Assay In The Delineation Of Surgical Site Infection	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Dioscaris Garcia	Lifespan
Simultaneous Detection Of Loosening And Infection With A Simple Smart Implant	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Thomas Hall	Imperial College London

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Comparison Of Periprosthetic Joint Infection Rates In The Direct Anterior Approach And Non-anterior Approaches To Primary Total Hip Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Dominique Dockery	Brown Alpert Medical School
Diagnosing Total Joint Arthroplasty-associated Periprosthetic Joint Infections In Immunocompromised Patient Populations	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Erin Baker	Beaumont Health
Intraoperative Purulence As A Criteria In Diagnosing Periprosthetic Joint Infection In Total Joint Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Corinn Gehrke	Beaumont Health
Inflammatory Response To Bacterial Peri-prosthetic Infection Is Heterogenous Across The Hip And Knee Joints	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Sita Nirupama Nishtala	Hospital for Special Surgery
Outpatient Total Hip Arthroplasty Performed At A Free-standing Ambulatory Surgery Center	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Mary Bayers-Thering	Kaleida Health
Muscle-Sparing Modified Anterolateral Watson-Jones Approach In Primary Total Hip Arthroplasty Is Not Associated To Periprosthetic Femur Fractures	2/13/2021 6:00	Hip and Knee Arthroplasty-Complications/Infections	Nickolas Van Roekel	University at Buffalo

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Initial Stabilization Mechanisms Of Cementless Acetabular Cups With Ti Mesh And 3D-Printed Structure Surfaces	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Ilona Hoffmann	Teijin Nakashima Medical Co.,Ltd.
Acceleration Effect Of The Use Of Higher Test Load On In Vitro Delamination Test Of Uhmwpe For Joint Prostheses	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Hideyuki Sakoda	National Institute of Health Sciences
MRI Can Differentiate Synovial Reponses In Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Matthew Koff	Hospital for Special Surgery
Determining The Optimal Orientation Of A Tibial Baseplate To Improve Registration Accuracy Of Model-based Radiostereometric Analysis	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Abigail Niesen	University of California Davis
Oral Administration Of Saracatinib, A Src Kinase Family Inhibitor, Suppresses Pathological Bone Resorption In Wear Debris-induced Osteolysis Murine Model	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Gen Matsumae	Faculty of Medicine and Graduate School of Medicine, Hokkaido University
Biocompatibility Of Leachables And Exhaustive Extractables From TiNbN-Coated CoCrMo Femoral Components	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Georgia Hurchalla	MicroPort Orthopedics

Presentation Title	Date & Time	Session Title	Primary Author	Institution
_{Wear Analysis Of The First Generation Cross-linked Polyethylene At Minimum 10 Years Follow-up After THA}	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Satoru Harada	Kyushu University
Effect Of Denosumab On Osteoclast Activity Within Osteolytic Lesions After Total Hip Arthroplasty: A Proof Of Concept Trial	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Mohit Mahatma	University of Sheffield
Comparative Analysis Of Fixation Structure Design On The Primary Stability Of Cementless TKA During Walking	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Wen Fan	Exactech Inc
Effect Of Impact Angle On Energy Transfer	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Dustin Whitaker	DePuy Synthes
Electrochemical Analysis Of The Degradation By Fretting-Corrosion At The Stem-Head And Stem-Cement Interfaces	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Vinícius dos Santos	Federal University of Santa Catarina
Cobalt And Not Chromium Ions Induce Oxidative Stress And Cellular Senescence In Human Synovial Fibroblasts	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Michael Grant	McGill University
Unsupervised Machine Learning To Identify Patient Demographic Profiles Related To Implant Migration In Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Elise Laende	Dalhousie University

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Energy Outputs And Efficiency Of Surgical Mallets	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Boon Him Lim	DePuy Synthes
A Novel Approach To Reduce Intraoperative Periprosthetic Fractures In Total Hip Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Shouchen Dun	DePuy Synthes Joint Reconstruction
Femoral Head Penetration Rates And Oxidation Of Sequentially Annealed Highly Crosslinked Polyethylene Hip Liners Implanted More Than 5 Years	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Daniel MacDonald	Drexel University
Portuguese Water Dog Proximal Femoral Canal Flare Somatypes: Implications For Translational Studies Of Total Hip Replacements	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	James Marshall	University of Utah
Early Performance Of Trident Ii Titanium Cup In Total Hip Arthroplasty: One Year Follow-up	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Jason Lin	University of Texas Southwestern Medical School
Pore Size Of Cementless Implants Depends On The Method Of Measurement	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Hannah Frankel	Smith & Nephew Inc.
Electrochemical Investigation Of Additively Manufactured Hip Implant Acetabular Shells	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Kai-yuan Cheng	University of Illinois College of Medicine Rockford
Revision Reasons And In Vivo Damage Mechanisms Of Highly Crosslinked Polyethylene Patellar Components	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Tabitha Derr	Drexel University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Procedure Of Division In Sectors For Stereoscopic Analysis Of Retrieved Acetabular Liners	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Lucas de Azambuja	Universidade Federal de Santa Catarina
Comparison Of Energy Transfer Efficiency Between Different Cup Impactors In Total Hip Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Shouchen Dun	DePuy Synthes Joint Reconstruction
Dynamic Microfluidic Bioreactor For Neurotoxicity Assessment Of Cocrmo Metal Particles: Hip Implant Application	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Ravindra Badhe	University of Illinois at Chicago, School of Medicine, Rockford
Oxidation And Damage Mechanisms In Highly Cross-linked Polyethylene Tibial Inserts Implanted More Than 5 Years	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Tabitha Derr	Drexel University
Variations In Anterior-posterior Dimensions Of The Proximal Femur Canal: A Ct-based Morphological Analysis	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Ahmad Faizan	Stryker Orthopaedics
Study Of Material Stiffness Effect On The Power Generation By Triboelectric Energy Harvesters In Standard Knee Implant Package Prototypes.	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Nabid Aunjum Hossain	SUNY, Binghamton, NY

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Comparison Of Conventional Reference Axes For Femoral Component Rotation In Total Knee Arthroplasty To Custom, Patient Specific Surgical Plans: A Ct-based Study	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	David Fitz	University of Washington
Mid To Long-term Follow-up On Revisions Of A Recalled Large-head Metal-on-metal Hip Prosthesis	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Nicholas Newcomb	UQ-Ochsner Clinical School
Intermediate Survival Of A Dual Tapered-wedge Fully HA Coated Press Fit Femoral Stem	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Ramakanth Yakkanti	University of Miami/Jackson Memorial Hospital
Correlation Of The Wear And The Physicochemical, Dimensional And Packing Characteristics Of Metal-uhmwpe Tribological Pairs: Preliminary Results	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Douglas Lunkes	Federal University of Santa Catarina
Unexpected Wear Of A Moderately Crosslinked Polyethylene In Total Hip Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Ramakanth Yakkanti	University of Miami/Jackson Memorial Hospital
Addressing Tibial Bone Loss With Metal Augments In Revision Total Knee Replacement Surgery	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Nguyen Pham	Yale School of Engineering

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Accelerated Fretting And Corrosion Testing Of Diffusion Hardened Oxidized Zirconium And Cobalt Chromium Molybdenum Modular Acetabular Liners	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Erik Woodard	Smith & Nephew
A Comparison Of Metallographic Evaluation Of Pore Morphology Using The Manual And Digital Methods Following ASTM F1854	2/13/2021 6:00	Hip and Knee Arthroplasty-Implant Materials, Fixation and Wear	Chenxi Li	Smith & Nephew Orthopeadics Ltd.
A Statistical Shape Modeling Approach To Describe The Morphological Variation Of Acetabular Defects	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Alexander Meynen	KU Leuven
Variability In Coronal Knee Laxity Measured During Computer-assisted Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Wen Fan	Exactech Inc
The Risk Of An Intraoperative Periprosthetic Fracture Is Sensitive To Femoral Morphology: A Finite Element Study	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Eunjoo Hwang	University of Texas Health Science Center
Reproducing Native Strain On Medical Collateral Ligament In Total Knee Arthroplasty With Kinematic Alignment	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Min Ji Kim	Sejong University
The Learning Curve Associated With Computer Navigated Total Hip Arthroplasty Using Direct Superior Approach	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	HIROSHI Watanabe	Nippon Medical School

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Novel In-silico Method Of Modelling Multi-strike Femoral Stem Insertion In Total Hip Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Lin Wang	Depuy Synthes
Virtual Morphologic Analysis - A Novel Approach To Confirming Fit Of A Novel Sensor Enabled Tibial Extension	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Adam Henderson	Zimmer Biomet
Use Of Forward Dynamics Modeling To Simulate Knee Stair Descent Activity	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Amitkumar Mane	DePuy Synthes Inc.
The Spinopelvic Imbalance Pre- And Post- Total Hip Arthroplasty.	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Taro Tezuka	Yokohama City University
Decreased Trunk Range Of Motion Is Associated With Low Back Pain Before Hip Arthroplasty In Patients With Hip-Spine Syndrome	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Christopher Como	University of Pittsburgh
Rom-to-impingement Curves Create A New Patient-specific Impingement-free Zone For Cups	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Thomas McCarthy	Stryker Orthopaedics
Intact Knee Contact Pressure And Kinematics During Gait And Shallow Knee Bend: A Cadaver Model	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Frederick Werner	SUNY Upstate Medical University

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The Effect Of Range Of Motion Simulated With Three-dimensional Simulation Analysis On Dislocation After Total Hip Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Ryo Mitsutake	Asahikawa Medical University
Sagittal And Transverse Dynamic Spinopelvic Mobility And Radiographic Assessment In Oa Patients	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Danilo Catelli	University of Ottawa
Biomechanical Analysis Of Anterior Cruciate Ligament Function In Bi-cruciate Retaining Total Knee Arthroplasty With Anatomical Shape	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Shogo Nabeki	Department of Orthopedic Surgery, Sapporo Medical University
A Computational Framework To Evaluate Clinically Relevant Temperature Rise On THA Implants Due To Radio-frequency Induced Heating During An MRI Procedure	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Ananthkrishnan Gopalakrishnan	Stryker
The Soft Tissue Harmony With The Knee Motion In Cruciate Retaining Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Amitkumar Mane	DePuy Synthes Inc.
Effect Of Patellar Implant Variability On The Patellofemoral Compartment In A Hinge Tka	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Amitkumar Mane	DePuy Synthes Inc.

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Comparison Of In Vivo Knee Kinematics Before And After Bicruciate-stabilised Total Knee Arthroplasty During Squatting	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Masato Kiyohara	Department of Orthopaedic Surgery, Graduate School of Medical Sciences, Kyushu University
Comparison Between Two- And Three-dimensional Methods In Offset Measurement After Total Hip Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Shine Tone	Graduate School of Medicine, Mie University
Next Generation Sensor-guided Total Knee Arthroplasty For Dynamic Compressive Force Measurement	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Tomohiro Okayoshi	Osaka Medical College
Supine-leg Press: An Alternative To Standing Lunge In High-speed Stereo Radiography	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Landon Hamilton	University of Denver
Additional Distal Femoral Resection Increases Mid-flexion Laxity In A Computational Model Of Posterior Stabilized TKA With Flexion Contracture	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Shady Elmasry	Hospital for Special Surgery
Muscle Activation During Walking On Inclined Surface In Total Knee Arthroplasty Patients: Medial Pivot Compared To Posterior Stabilized Implants	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Danilo Catelli	University of Ottawa

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Average Geometry Of The Knee And Application To Total Knee Design & Technique	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Fatema Rahman	NYU Langone Orthopedic Hospital
Predicting Operative Time After Primary Total Joint Arthroplasty: A Machine Learning Approach	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Medial Compartment Biomechanics In The Cruciate Sacrificing Solutions	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Amitkumar Mane	DePuy Synthes Inc.
Impingement Free Range Of Motion For Native Hips And Hips Implanted With Dual Mobility THA	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Michael Scinto	Center of Orthopaedic Biomechanics, University of Denver
The Oxford Domed Lateral Implant: increasing tibial component wall height reduces the risk of medial dislocation of the mobile bearing	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Irene Yang	University of Oxford
Variability In Loads Applied By Surgeons During Passive Flexion After Tkr: In Vitro Cadaver Simulations	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Zach Hargett	Clemson University
In Vivo Kinematic Analysis Of Bicruciate-retaining Total Knee Arthroplasty Focused On Function Of The Acl	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Kosei Ishigaki	Toho University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Evaluating The Effect Of Cup Orientation And Patient Activity On Stem Impingement Potential Using Hip Simulation Tool	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	David Abeskaron	Stryker
Femoral Head Translation In Hip Joint Kinematics - Hip Instability Study	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Mauricio Valdez	UT Southwestern Medical School
Quantifying Intraoperative Decision-making Of Knee Balance In Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Shady Elmasry	Hospital for Special Surgery
Pelvic Tilt Can Result In Acceptable Cup Positions Outside Of The Lewinnek Safe Zone	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Thomas McCarthy	Stryker Orthopaedics
Biomechanical Analysis Of Mechanically Versus Kinematically Aligned Total Knee Arthroplasty Using A Joint Motion Simulator Linked To A Virtual Ligament Model	2/13/2021 6:00	Hip and Knee Arthroplasty-Kinematics and Computational Modeling	Allan Sekeitto	London Health Sciences Centre
Predicting Extended Postoperative Opioid Use In Primary Total Joint Arthroplasty: A Machine Learning Approach	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Predicting Intra-operative Blood Loss And Transfusion Rate In Primary Total Joint Arthroplasty With Artificial Neural Networks	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Benchtop Positional Accuracy Assessment Of A Robotic-assisted Surgical System Using Digital Image Correlation	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Kelly Mote	DePuy Synthes
Standardized Preclinical Evaluation Of Total Knee Function	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Peter Walker	NYU Langone Orthopedic Hospital
Semantic Segmentation Of The Asian CT Scan Images Using U-net Deep Convolutional Neural Network	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Takayuki Nakamura	DePuySynthes Asia Pacific
Robotic-assisted Total Hip Replacement Can Offer Efficiencies And Accuracy For Surgeons In Fellowship Training	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Alexandra Valentino	Stryker
Correction Of Moderate And Severe Sagittal Deformity In Robotic-Assisted TKA	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Emily Hampp	Stryker
Novel Augmented-Reality Templating Application For Total Hip Arthroplasty: A Retrospective Analysis	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Parth Desai	Ochsner Clinic Foundation
Assessment Of Soft Tissue Following Use Of A Novel Concept For Robotic-assisted Total Knee	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Chadd Clary	Center of Orthopaedic Biomechanics, University of Denver

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Reliability Of Landmark Recognition And Angle Measurement Of Lower Extremity X-ray Using Deep Learning Algorithm	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Changwung Jo	Seoul National University College of Medicine
Assessment Of Machine Learning Methods In Image-free Total Knee Implant Size Prediction	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Laurent Angibaud	Exactech Inc
Patient Symptom States For Total Knee Replacement Satisfaction At Mid-term Follow-up	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Wen Fan	Exactech Inc
Comparison Of Two Machine Learning Approaches In The Classification Of Total Knee Arthroplasty Patients	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Wen Fan	Exactech Inc
Time-based Learning Curve For Robotic-assisted Total Knee Arthroplasty: A Multicenter Bayesian Model	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Andrea Coppolecchia	Stryker Orthopaedics
Utilizing Artificial Neural Networks For Predicting Prolonged Length Of Stay In Primary Total Joint Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Automated Identification Of Periprosthetic Femoral Fracture Classifications From Electronic Medical Records For Patients Undergoing Revision Total Hip Arthroplasty Using Natural Language Processing	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Young-Min Kwon	Massachusetts General Hospital, Harvard Medical School
Characterizing Patients' Returning To Work And Driving After Total Knee Arthroplasty	2/13/2021 6:00	Hip and Knee Arthroplasty-Robotics and AI	Jingwei Zhang	Stryker Orthopaedic
Digital Tomosynthesis Derived Texture And Mechanical Measures Differentiate Between Fractured And Intact Vertebrae	2/13/2021 6:00	Imaging-Hard Tissue	Joshua Drost	Henry Ford Health System
Clinical Computed Tomography Reliably Quantifies Subchondral Bone Structural Changes In Human Osteoarthritis	2/13/2021 6:00	Imaging-Hard Tissue	Tamás Oláh	Saarland University
Dxa-derived Bmd Is Not Associated With Bone Metabolism In Prostate Cancer Patients	2/13/2021 6:00	Imaging-Hard Tissue	Helene Chesnais	University of Pennsylvania
Analysis Of The Influence Of Teriparatide On Cortical Bone In Ovariectomized Rats Using Sweep Imaging With Fourier Transform	2/13/2021 6:00	Imaging-Hard Tissue	sotozono yasutaka	Kyoto Prefectural University of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Semi-automatic Micro-ct Segmentation Of The Cuneiforms Using Calibrated Thresholds	2/13/2021 6:00	Imaging-Hard Tissue	Melissa Requist	University of Utah
Characterization Of The Topology Of The Osteocyte Lacunar-canalicular Network Using Sensitivity Analysis-validated, Automated Software	2/13/2021 6:00	Imaging-Hard Tissue	Brennan Flannery	Purdue University
Radioanatomic Correlation Of The Anatomy Of The Greater Trochanter, Used As A Reference For Measurement Of Femoral Offset	2/13/2021 6:00	Imaging-Hard Tissue	Alex Brady	SPRI
Patient Specific Models Of Nutrient Availability In Degenerated Intervertebral Discs: A Path Towards Determining Which Patients Are Candidates For Stem Cell Therapy	2/13/2021 6:00	Imaging-Image Analyses	Ward Shalash	Oregon State University
Quantitative Bone Spect Imaging For Nonunion	2/13/2021 6:00	Imaging-Image Analyses	Kyohei Takase	Kobe University Graduate School of Medicine
Fully Automatic Femoral Bone Segmentation Of Knee Mri For Small Clinical Dataset With Sparse Labeling	2/13/2021 6:00	Imaging-Image Analyses	Sibaji Gaj	Cleveland Clinic

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Three-dimensional Wrist Joint Congruity Evaluation Of Wrist Joint Contact Area In Procedures For KienböCk Disease	2/13/2021 6:00	Imaging-Image Analyses	JUNKI SHIOTA	Hokkaido University Hospital
Automated Segmentation Of Vertebral Cancellous And Cortical Bone In Mouse Spines Using Deep Learning UNET Model	2/13/2021 6:00	Imaging-Image Analyses	Brennan Flannery	Purdue University
A Transfer Learning Approach For Automatic Segmentation Of The Surgically Treated Anterior Cruciate Ligament	2/13/2021 6:00	Imaging-Image Analyses	Sean Flannery	Brown University
Risk Factors For Tibial Tunnel Coalition After Anatomic Double-bundle Anterior Cruciate Ligament Reconstruction	2/13/2021 6:00	Imaging-Image Analyses	Koji Nukuto	Kobe University Graduate School of Medicine
Agreeability Of Hip Morphologic Parameters Measured On MRI-based 3D Reconstructed Models And Radiographs	2/13/2021 6:00	Imaging-Image Analyses	Alexander Newhouse	Rush University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Cadaveric Study: 2D Alpha Angle Measurements Are Associated With Volumetric, Surface Area, And Maximum Depth Of Resection In CT- And MRI-based 3D Reconstructed Hip Models Following Arthroscopic Femoral Osteochondroplasty	2/13/2021 6:00	Imaging-Image Analyses	Martina Guidetti	Rush University
Machine Learning Approach For The Objective Sonographic Assessment Of Patellar Tendons In Collegiate Basketball Athletes	2/13/2021 6:00	Imaging-Image Analyses	Carrie Cheung	Virginia Tech
Rapid Visualization And Analysis Of Orthopaedic Device Related Infections With A Novel Software	2/13/2021 6:00	Imaging-Image Analyses	Adrian Turcu	Brown University
Diabetes Is Associated With A Lower Minimum Moment Of Inertia Among Older Women: An Analysis Of 3D Reconstructions Of Clinical CT Scans	2/13/2021 6:00	Imaging-Image Analyses	Lauren Heckelman	Duke University
Spinal Cord Medial Safe Zone During C2 Pedicle Instrumentation: A MRI Measurement Analysis	2/13/2021 6:00	Imaging-Image Analyses	Erika Chiapparelli	Hospital For Special Surgery
Intraoperative Stitched Fluoroscopic Images: Effect Of Parallax On Angular Measurements Of The Spine	2/13/2021 6:00	Imaging-Image Analyses	Arin Ellingson	University of Minnesota

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Developing A Reliable Grading System For Evaluation Of Ovine Intervertebral Disc Degeneration	2/13/2021 6:00	Imaging-Image Analyses	Rachel Yerden	Cornell University
Retrospective Analysis Of A Novel Augmented-Reality Templating Solution For Total Knee Arthroplasty	2/13/2021 6:00	Imaging-Image Analyses	Parth Desai	Ochsner Clinic Foundation
Magnetic Resonance Spectroscopic Analysis Of Multifidus Muscle Lipid Contents And Association With Nociceptive Pain In Chronic Low Back Pain	2/13/2021 6:00	Imaging-Image Analyses	IZAYA OGON	Sapporo Medical University
Quantitative Analysis Of Sonographic Images Of Patellar Tendons In Collegiate Women's Basketball Players Using Shear Wave Elastography Texture Analysis	2/13/2021 6:00	Imaging-Image Analyses	Zachary Kozar	Virginia Tech
Advanced Risk Analyses Of Post-traumatic Osteoarthritis Development Based On Objective Measures Of Injury Severity Indicate Differences In Injury Tolerance Across Joints	2/13/2021 6:00	Imaging-Image Analyses	Kevin Dibbern	University of Iowa

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Automated Segmentation Of Complete Mouse Ankle Micro-CT Datasets For High-Throughput Cortical And Trabecular Analysis	2/13/2021 6:00	Imaging-Image Analyses	H. Mark Kenney	University of Rochester Medical Center
CISS Is A More Sensitive Sequence To Track Anterior Cruciate Ligament Remodeling Following Surgical Treatment Compared To Common Clinical Sequences	2/13/2021 6:00	Imaging-Soft Tissue	Mo Han	Boston Children's Hospital
Novel Sh2-oligo Imaging Probes Provide A Platform For Multiplex Imaging Of The Tyrosine Phosphoproteome	2/13/2021 6:00	Imaging-Soft Tissue	Meagan Cauble	University of Connecticut Health Center
Dixon MRI For Quantitative Assessment Of Thigh Muscle Fatty Infiltration In Post-Traumatic Osteoarthritis 10-years After ACL Reconstruction Shows Elevated Hamstrings Fat Fraction After Graft Harvest	2/13/2021 6:00	Imaging-Soft Tissue	Brendan Eck	Cleveland Clinic
Neo Contrast Agent To Reveal Damaged Cartilage Surface	2/13/2021 6:00	Imaging-Soft Tissue	Shuichi Mizuno	Brigham and Women's Hospital
Meniscus T2* Mapping With Denoising In College Basketball Players	2/13/2021 6:00	Imaging-Soft Tissue	Ek Tan	Hospital for Special Surgery

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Multi-parameter Quantitative Magnetic Resonance Imaging Of Skeletal Muscle: A Feasibility Study	2/13/2021 6:00	Imaging-Soft Tissue	Carly Lockard	Steadman Philippon Research Institute
Diffusion Tensor Imaging Reveals Collagen Content And Organization In Ex Vivo Human Achilles Tendon	2/13/2021 6:00	Imaging-Soft Tissue	Jennifer Zellers	Washington University School of Medicine in St. Louis
Evaluation Of 30-day Mortality In Patients Undergoing Trauma And Orthopedic Procedures During The Covid-19 Pandemic	2/13/2021 6:00	Infection-Biomarkers and Outcomes	Nimrath Kainth	Sandwell and West Birmingham Hopsitals Trust - National Health Service
Vasculotropic And Osteotropic Features Of S. Agalactiae Vs. S. Aureus Implant-associated Bone Infection In Mice	2/13/2021 6:00	Infection-Biomarkers and Outcomes	Elysia Masters	University of Rochester
The Cellular Acute Phase Response As A Predictor Of Mortality In Patients With Necrotizing Fasciitis	2/13/2021 6:00	Infection-Biomarkers and Outcomes	Stephanie Moore-Lotridge	Vanderbilt University Medical Center
Low Level Synovial Fluid Procalcitonin In Septic Arthritis, Relation To Fibrin And Fibrinogen Interaction	2/13/2021 6:00	Infection-Biomarkers and Outcomes	Kordo Saeed	Southampton University Hospitals
Platelet Deficiency Represents A Reversible Risk Factor For Prosthetic Joint Infection In A Pre-clinical Mouse Model	2/13/2021 6:00	Infection-Biomarkers and Outcomes	Danielle Greig	University of California, Los Angeles

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Alpha Defensin Provides No Increased Diagnostic Utility Over Leukocyte Esterase And Synovial White Blood Cell Count	2/13/2021 6:00	Infection-Biomarkers and Outcomes	Emanuele Chisari	Rothman Orthopaedic Institute
Patient Factors, Outcomes And Application Of Species-specific Multiplex Immunoassay For Identification Of Streptococcus Agalactiae In Orthopaedic Infection	2/13/2021 6:00	Infection-Biomarkers and Outcomes	Aron Sulovari	Center for Musculoskeletal Research, University of Rochester Medical Center
Leukocyte Esterase Versus Icm 2018 Criteria In The Diagnosis Of Periprosthetic Joint Infection	2/13/2021 6:00	Infection-Biomarkers and Outcomes	Emanuele Chisari	Rothman Orthopaedic Institute
Comparison Of Ribosomal-rna Polymerase Chain Reaction And Conventional Culture In Detection Of C. Acnes In Clinical Glenohumeral Joint Samples From A Series Of 100 Consecutive Patients	2/13/2021 6:00	Infection-Biomarkers and Outcomes	Margaret Hankins	University of Pittsburgh Medical Center
Pyruvate Targets Cytosolic Phospholipase A2 And Resolves Inflammation	2/13/2021 6:00	Infection-Treatment and Therapeutics	SADAF HASAN	NYU Langone orthopedic hospital
Biofilm Formation On Poly(methyl Methacrylate) Bone Cement And A Silorane-based Biomaterial	2/13/2021 6:00	Infection-Treatment and Therapeutics	Grahmm Funk	University of Kansas Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Timing Of Antimicrobial Prophylaxis And Tourniquet Inflation - A Randomized Controlled Microdialysis Study	2/13/2021 6:00	Infection-Treatment and Therapeutics	Pelle Hanberg	Horsens Regional Hospital
Staphylococcus Aureus Initially And Preferentially Utilizes Biofilm Mediated Antibiotic Tolerance Prior To Resistance	2/13/2021 6:00	Infection-Treatment and Therapeutics	Derek Amanatullah	Stanford
The Effect Of Antimicrobial Photodynamic Therapy On Periprosthetic Joint Infections	2/13/2021 6:00	Infection-Treatment and Therapeutics	Thomas Listopadzki	University at Buffalo Jacobs School of Medicine and Biomedical Sciences
Teriparatide Mitigates The Cytotoxic Effects Of Vancomycin On Osteoblasts	2/13/2021 6:00	Infection-Treatment and Therapeutics	Kentaro Tsuji	Department of Orthopaedic Surgery, Toho University School of Medicine
In Vitro Analysis Of Anti-Biofilm Effect Of Intraoperative Irrigation Solutions Against Escherichia Coli Biofilm	2/13/2021 6:00	Infection-Treatment and Therapeutics	Daniel Driscoll	Hospital for Special Surgery
Potential Of Antibiotic Loaded β-tricalcium Phosphate / Calcium Sulfate Bone Graft Substitute For The Prevention And Killing Efficacy Of Bacterial Biofilms In-vitro	2/13/2021 6:00	Infection-Treatment and Therapeutics	Paul Stoodley	The Ohio State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Effects Of Tourniquet Inflation On Peri- And Postoperative Cefuroxime Concentrations In Bone And Tissue	2/13/2021 6:00	Infection-Treatment and Therapeutics	Pelle Hanberg	Horsens Regional Hospital
Removal Of Staphylococcus Epidermidis Biofilm From Orthopedic Implants With A Novel Irrigation Cocktail	2/13/2021 6:00	Infection-Treatment and Therapeutics	Ellis Berns	Brown University
The Anti-bacterial Properties Of Cerium Oxide Nanoparticles	2/13/2021 6:00	Infection-Treatment and Therapeutics	Melanie Coathup	Biionix, College of Medicine, University of Central Florida
An Ai-based Histological Analysis Of Periprosthetic Infection In A Rat Model	2/13/2021 6:00	Infection-Treatment and Therapeutics	Yingfang Fan	1Harris Orthopaedic Laboratory, Massachusetts General Hospital, Boston, MA, United States
Developing Bioactive-Nanograined Metals With Bacterial Biofilm Inhibition Properties For Orthopedic Devices	2/13/2021 6:00	Infection-Treatment and Therapeutics	Shaunak Kelkar	Northeastern University
A Metabolomic Study Into The Effect Of Non-lethal Dispersion On Antimicrobial Tolerance In Staphylococcus Aureus Biofilms	2/13/2021 6:00	Infection-Treatment and Therapeutics	Shao-Ting Jerry Tsang	University of Edinburgh
Antimicrobial Peptide-Coated PMMA Bone Cement: A Step Towards Treating Orthopedic Related Infections	2/13/2021 6:00	Infection-Treatment and Therapeutics	Grahmm Funk	University of Kansas Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Comparison Of Bactericidal Activity And Cytotoxicity Of Sliver Oxysalt And Silver Nitrate In Vitro	2/13/2021 6:00	Infection-Treatment and Therapeutics	David Markel	Ascension Providence Hospital
The Use Of Synergistic Antibacterial Activity Against Staphylococcal Biofilm	2/13/2021 6:00	Infection-Treatment and Therapeutics	Dmitry Gil	Massachusetts General Hospital - Harvard Medical School
Immune Activated Mesenchymal Stromal Cell Therapy To Treat Septic Arthritis In An Equine Model	2/13/2021 6:00	Infection-Treatment and Therapeutics	Lynn Pezzanite	Colorado State University
Methicillin Resistant Staphylococcus Aureus Is Not Always Resistant To Cefazolin	2/13/2021 6:00	Infection-Treatment and Therapeutics	Kenneth Urish	University of Pittsburgh
Effect Of Inoculation Amount And Timing To Treatment On Antibiotic Tolerance: Implications On Bench To Bedside	2/13/2021 6:00	Infection-Treatment and Therapeutics	Stefanie Shiels	USAISR
Novel In Vivo Mouse Model Of Periprosthetic Joint Infection Via Delayed Inoculation In The Early Post-operative Period	2/13/2021 6:00	Infection-Treatment and Therapeutics	Christopher Hart	UCLA
The Use Of Pulsed Electromagnetic Fields To Inhibit Staphylococcus Epidermidis Biofilm And Planktonic Cell Growth	2/13/2021 6:00	Infection-Treatment and Therapeutics	Ryan Juncker	University of California, Los Angeles (UCLA)

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Metabolic Responses Of Degenerative Intervertebral Discs From Patients Undergoing Cervical Or Lumbar Fusions	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Jacob Kramer	University of Missouri Columbia
Activation Of Ikkβ Causes Severe Intervertebral Disc Degeneration In The Mouse Caudal Spine	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Kevin Burt	Columbia University
Effects Of Glucose And Insulin Levels On Metabolic Responses From Intervertebral Discs	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Morgan Kluge	University of Missouri Columbia
Metabolic Profiles Of Degenerative Lumbar Intervertebral Discs From Patients Treated For Lumbar Spondylolisthesis	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Jacob Kramer	University of Missouri Columbia
Verteporfin-Associated Changes In Nucleus Pulposus Cell Shape Induce Differential Expression Of Ca²⁺/Calmodulin Protein Kinase CAMK1D	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Eddie Afetse	Atrium Health
Comparison Of Inflammatory And Degradative Biomarker Levels In Degenerative Intervertebral Discs Recovered From Symptomatic And Asymptomatic Lumbar Spines	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Naomi Lee	University of Missouri Columbia

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Evaluation Of Intervertebral Disc Metabolic Responses To Sustained Il-10 Stimulation Using A Rat-tail Whole Organ Explant Model	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Elizabeth Fletcher	University of Missouri Columbia
Newly Engineered Chimera Decoy Oligodeoxynucleotide Suppresses Proteoglycan Degradation In The Human Intervertebral Disc	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Daisuke Fukui	Wakayama Medical University
Serpina1 Systemic Deletion Models The Bone Loss And Intervertebral Disc Degeneration From Genetic Emphysema	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Neharika Bhadouria	Purdue University/IUPUI
Mast Cells Cause Intervertebral Disc Degeneration In Smokers	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Abhirup Das	University of New South Wales
Differences In Basal And Cytokine Stimulated Metabolic Responses By Lumbar Intervertebral Discs Based On Pfirrmann Grades	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Jacob Kramer	University of Missouri Columbia
Effects Of Pregnancy And Lactation On The Functional Spinal Unit Post Menopause	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Wenzheng Wang	University of Pennsylvania
Responses Of Annulus Fibrosis From Patients Without Low Back Pain To Pro-inflammatory Stimuli	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Naomi Lee	University of Missouri Columbia

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Metabolic Profiles Of Degenerative Intervertebral Discs From Patients Undergoing Lumbar Discectomy Or Fusion	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Jacob Kramer	University of Missouri Columbia
Actomyosin Contractility Mediates Response Of The Np Cell Phenotype To Inflammatory Stimulation	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Timothy Jacobsen	Columbia University
Galectin-3 Mediates Advanced Glycation End-Product-Induced Collagen Damage In Murine Intervertebral Discs	2/13/2021 6:00	Intervertebral Disc-Diseases and Disorders	Zachary Gallate	Leni and Peter W. May Department of Orthopaedics, Icahn School of Medicine at Mount Sinai
Effects Of Collagen Cross-linking On Glucose Transport And Tissue Hydration In The Human Cartilage Endplate	2/13/2021 6:00	Intervertebral Disc-Growth, Development and Aging	Jae-Young Jung	University of California, San Francisco
The Efficacy Of Growth Differentiation Factor-6 On The Three Dimensionally Cultured Human Intervertebral Disc Cells And Rat Tail Puncture Model	2/13/2021 6:00	Intervertebral Disc-Growth, Development and Aging	Kunihiko Miyazaki	Kobe University Graduate School of Medicine
Discoidin Domain Receptor 1 Mediates The Development Of Intervertebral Disc	2/13/2021 6:00	Intervertebral Disc-Growth, Development and Aging	Chung-Hwan Chen	Kaohsiung Medical University
Cell Atlas Of Human Neonatal Intervertebral Disc	2/13/2021 6:00	Intervertebral Disc-Growth, Development and Aging	Wensen Jiang	Cedars-Sinai Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Activation Of TRPV4 Mediates Calcium Signaling And Increases Glycosaminoglycan Production In Intervertebral Disc Organ Culture	2/13/2021 6:00	Intervertebral Disc-Growth, Development and Aging	Garrett Easson	Washington University in St Louis
Phlpp1 Deficiency Decelerates Inflammation And Spontaneous Intervertebral Disc Degeneration In Aged Mice	2/13/2021 6:00	Intervertebral Disc-Growth, Development and Aging	Changli Zhang	Emory University
A Conditional Allele Of Brachyury, A Key Notochord Transcription Factor, Identifies Its Role In Postnatal Mouse Nucleus Pulposus Cells	2/13/2021 6:00	Intervertebral Disc-Growth, Development and Aging	Chitra Dahia	Hospital for Special Surgery
Rapamycin Ameliorates Age-associated Intervertebral Disc Degeneration In Male Marmosets	2/13/2021 6:00	Intervertebral Disc-Growth, Development and Aging	Rebecca Kritschil	University of Pittsburgh
A Novel Retroperitoneal Approach For The Targeted Annular Tear Injury In The Mouse Lumbar Spine	2/13/2021 6:00	Intervertebral Disc-Injury, Healing and Pain	Simon Tang	Washington University in St Louis
Effects Of Cyclic Compression And Pro-inflammatory Stimulation On Injured Ivds Using A Whole-organ Rat Tail Model	2/13/2021 6:00	Intervertebral Disc-Injury, Healing and Pain	Elizabeth Fletcher	University of Missouri Columbia

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Biomechanical Analysis of Structural Stability of the Lumbar Spine in Relation to the Extent ofEndoscopic Lumbar Foraminotomy: A Finite Element Study	2/13/2021 6:00	Intervertebral Disc-Injury, Healing and Pain	Jeong Hyeon Lee	Inje university
Ablation Of VEGFA Following Lumbar Intervertebral Disc Injury In Mice Mitigates Locomotive Impairments	2/13/2021 6:00	Intervertebral Disc-Injury, Healing and Pain	Ryan Potter	Washington University in St Louis
Changes In Spinal Cord Transcriptome Following Intervertebral Disc Injury Using An In-vivo Rat Model	2/13/2021 6:00	Intervertebral Disc-Injury, Healing and Pain	Alon Lai	Icahn School of Medicine at Mount Sinai
Intervertebral Disc Injury Causes Shift In Dorsal Root Ganglia Gene Expression Profile That Is Dependent On Sex And Peripheral Pain Pathways	2/13/2021 6:00	Intervertebral Disc-Injury, Healing and Pain	Jennifer Gansau	Icahn School of Medicine at Mount Sinai
Sexual Dimorphic Differences Of The Lumbar Intervertebral Disc Of Back-healthy Individuals With Low Back Pain Symptoms Induced By Prolonged Standing	2/13/2021 6:00	Intervertebral Disc-Injury, Healing and Pain	Donald Aboytes	Washington University in St Louis
Hydrostatic Pressure Loading Of Macrophages Regulates Immune Function	2/13/2021 6:00	Intervertebral Disc-Structure, Function and Mechanics	Kevin Burt	Columbia University
Histopathological Evaluation Of Adult Human Intervertebral Discs - Simple Techniques To Consider	2/13/2021 6:00	Intervertebral Disc-Structure, Function and Mechanics	Chantelle Bozynski	University of Missouri

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Annulus Fibrosus Fiber Contribution To The Residual Strain State Of The Intervertebral Disc In Finite Element Models	2/13/2021 6:00	Intervertebral Disc-Structure, Function and Mechanics	Harrah Newman	University of Delaware
Recommendations For Histological Assessments Of Intervertebral Disc Degeneration In Rat Models	2/13/2021 6:00	Intervertebral Disc-Structure, Function and Mechanics	Alon Lai	Icahn School of Medicine at Mount Sinai
Neoepitope Peptides Biomarker For Different Types Of Intervertebral Disc Degeneration	2/13/2021 6:00	Intervertebral Disc-Structure, Function and Mechanics	Shangbin Cui	AO research institute
Theoretical Distribution Of Fiber Orientations Based On Endplate Growth And Development In The Intervertebral Disc Annulus Fibrosus	2/13/2021 6:00	Intervertebral Disc-Structure, Function and Mechanics	Arthur Michalek	Clarkson University
Development Of A Standardized Histopathology Scoring System For Intervertebral Disc Degeneration And Regeneration In Rabbit Models	2/13/2021 6:00	Intervertebral Disc-Structure, Function and Mechanics	Sarah Gullbrand	University of Pennsylvania
Level-Dependent Nucleus Pulposus Migration In The Lumbar Spine Of Back-Healthy Individuals During Prolonged Standing	2/13/2021 6:00	Intervertebral Disc-Structure, Function and Mechanics	Arin Ellingson	University of Minnesota

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Prediction Of Biomechanical Responses Of Human Lumbar Discs - A Stochastic Finite Element Model Analysis Material Uncertainties On Biomechanical Responses Of Intervertebral Discs: A Stochastic Finite Element Method	2/13/2021 6:00	Intervertebral Disc-Structure, Function and Mechanics	Wei Wang	Newton-Wellesley Hospital
Intervertebral Disc Morphology In Adolescents With Idiopathic Scoliosis: Initial Response To Corrective Spinal Fusion And 1-Year Follow-Up	2/13/2021 6:00	Intervertebral Disc-Structure, Function and Mechanics	Arin Ellingson	University of Minnesota
Theoretical Analysis Of Extracellular ATP Distribution In Porcine Intervertebral Disc	2/13/2021 6:00	Intervertebral Disc-Structure, Function and Mechanics	Chun-Yuh Huang	University of Miami, College of Engineering
MSC Secretome Treatment Of Loaded Annulus Fibrosus Organ Cultures Decreases The Inflammatory Response	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Graciosa Teixeira	Institute of Orthopaedic Research and Biomechanics, Ulm University
Highly-purified Human Mesenchymal Stem Cells And Alginate Gel Promote Intervertebral Disc Regeneration In A Preclinical Large Animal Model	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Daisuke Ukeba	Hokkaido University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Genipin-crosslinked Fibrin Seeded With Oxidized Alginate Microbeads As A Novel Composite Biomaterial Strategy For Intervertebral Disc Cell Delivery	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Christopher Panebianco	Icahn School of Medicine at Mount Sinai
Regenerative Potential Of Isolated Human Nucleus Pulposus Cells Under Physicochemical Stresses Mimicking Circadian Spinal Motion	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Yoshiki Takeoka	Brigham and Women's Hospital
Mechanical Loading Of The Ivd Influences The Immunomodulatory Response Of Mscs In Co-culture	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Hagar Kenawy	Columbia University
In Vivo Comparison Of Bioactivity And Safety Of Discogenic Cells Generated Using Two Processes	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Lara Silverman	Discgenics, Inc
Chondroitin Sulfate-A Microparticles With Encapsulated Synthetic Antioxidants As Microreactors For Long Term ROS Scavenging In Painful Degenerated Discs	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Fei San Lee	University of Nebraska-Lincoln
A Strategy Towards Intervertebral Disc (IVD) Reporter Cells	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Thomas Lufkin	Clarkson University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Caprine Model Of Intervertebral Disc Degeneration: A Testing Platform For An Injectable Hydrogel	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Christine Le Maitre	Sheffield Hallam University
Regenerative Potential Of Extrinsic Aggrecan On Bovine Nucleus Pulposus Cells Under Physicochemical Stresses Mimicking Circadian Spinal Motion	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Yoshiki Takeoka	Brigham and Women's Hospital
Peripherally Restricted Kappa Receptor Agonists Reduces Back Pain Behavior In Rats	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Ana Chee	Rush University Medical Center
Thermoresponsive Injectable Hydrogel For Delivery Of Notochordal Cells For Intervertebral Disc Regeneration	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Rebecca Williams	Sheffield Hallam University
In Vivo Assessment Of Biodegradable Support Structures For Total Disc Replacement In The Minipig Cervical Spine	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Marianne Lintz	Cornell University
Axial Compression Improves Intradiscal Injectate Retention In A Large Animal Model	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Arthur Michalek	Clarkson University
Systemic Delivery Of Anti-Sclerostin Antibody Augments Intervertebral Disc Structure	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Tori Kroon	IUPUI

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Hmsc-derived Exosomes As A Stem Cell-free Strategy For Biologically Active Annulus Fibrosus Repair	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Tyler DiStefano	Icahn School of Medicine at Mount Sinai
Genome-wide Crispr-activation Screen For Identifying Pro-survival Targets In Ascs	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Jacob Weston	University of Utah
Developmentally-relevant Soluble And Biophysical Cues Direct Hipsc Differentiation Towards An Af-like Fate	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Ana Peredo	University of Pennsylvania
Assessment Of Clinically Relevant Measures For Injection Of Intervertebral Disc Therapies	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Andrew Dixon	Institute of Medical and Biological Engineering
Can The Cyclooxygenase-2 Inhibitor Celecoxib Influence Discogenic Pain Signals? An In Vitro Study With Inflamed Annulus Fibrosus Cells	2/13/2021 6:00	Intervertebral Disc-Treatment and Therapeutics	Sonja Häckel	Department of Orthopaedic Surgery and Traumatology, Inselspital, Bern University Hospital
Tibiofemoral 3D Joint Space Width Measures From Weight Bearing CT Are Highly Responsive To Changes Over 24 Months In Knees From The Multicenter Osteoarthritis Study	2/13/2021 6:00	Knee-Diagnostics	Donald Anderson	University of Iowa
Predicting Functional Recovery To Realistically Set Patient Expectations Following Total Knee Replacement	2/13/2021 6:00	Knee-Diagnostics	Riley Bloomfield	Western University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Comparison Of Weight Bearing CT (WBCT) Arthrography With MRI To Diagnose Knee Meniscal Tears	2/13/2021 6:00	Knee-Diagnostics	Neil Segal	University of Kansas
Concomitant Arthritis Biomarkers In Rheumatoid Arthritis Subject Cohort	2/13/2021 6:00	Knee-Diagnostics	John Miamidian	CD Diagnostics
Rapid X-ray-based 3-D Finite Element Modeling Of Knee Joint Biomechanics	2/13/2021 6:00	Knee-Diagnostics	Sana Jahangir	University of Eastern Finland
Investigating Correlations Between Biochemical Biomarkers And Quantitative Osteoarthritis Metrics	2/13/2021 6:00	Knee-Diagnostics	Clare Fitzpatrick	Boise State University
Kinematics Of Varus Thrust In Patients With Medial Knee Osteoarthritis - Quantified By Three-dimensional Analysis	2/13/2021 6:00	Knee-Diagnostics	KOJI IWASAKI	Hokkaido University Graduate School of Medicine
Sensitization Is Associated With Pain At Rest, Not Pain On Walking In Patients With Knee Osteoarthritis: Comparison Of Predisposing Factors Between Walking Pain And Rest Pain In Patients With Knee Osteoarthritis	2/13/2021 6:00	Knee-Diagnostics	YOSHINORI SATAKE	Kochi Medical School, Kochi University
A New Predictor Of The Change In Knee Adduction Moment After High Tibial Osteotomy; Virtual Ground Reaction Force Vector	2/13/2021 6:00	Knee-Diagnostics	KOJI IWASAKI	Hokkaido University Graduate School of Medicine

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Development Of A Differential Diagnosis Arthritis Panel	2/13/2021 6:00	Knee-Diagnostics	Krista Toler	CD Diagnostics
Estimation Of The External Knee Adduction Moment Impulse During Gait Using Wearable Devices In Patients With Knee Osteoarthritis	2/13/2021 6:00	Knee-Diagnostics	Yu Iwama	Keio University School of Medicine
Intra-articular Knee Injuries In Extensor Mechanism Ruptures Detected By Preoperative Mri: Do They Affect Clinical Practice?	2/13/2021 6:00	Knee-Diagnostics	Andrea Spiker	University of Wisconsin-Madison
Virtual Ground Reaction Force Vector; A Predictor Of Knee Adduction Moment During Walking In Healthy Person	2/13/2021 6:00	Knee-Diagnostics	Yoshiaki Hosokawa	Hokkaido University
A Simple Geometric Model To Describe The Error In The Lowest Point Method For Determining Anterior-posterior Locations Of Contact Developed By The Femoral Condyles On The Tibial Insert	2/13/2021 6:00	Knee-Diagnostics	Alexander Simileysky	University of California, Davis
Comparison Of Meniscal T2* Metrics In Elite Basketball Players And Swimmers	2/13/2021 6:00	Knee-Diagnostics	Erin Argentieri	Hospital for Special Surgery
Raman Needle Arthroscopy For In Vivo Diagnostics Of Musculoskeletal Connective Tissues	2/13/2021 6:00	Knee-Diagnostics	Juncheng Zhang	Boston University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Gait Compensations In Rats Affected By Age Of Meniscal Injury Onset	2/13/2021 6:00	Knee-Growth, Development and Aging	Kiara Chan	University of Florida
Youth Soccer Athletes Have Knee Morphology That Resembles Low-risk Adult Knee Morphology	2/13/2021 6:00	Knee-Growth, Development and Aging	Gabriela Portilla	Boston Children's Hospital
Effect Of Challenging Conditions On Lower Limb Kinematics	2/13/2021 6:00	Knee-Growth, Development and Aging	Clare Fitzpatrick	Boise State University
Morphogenesis Of Fibrous Structures In The Embryonic Knee Is Severely Disrupted By A Lack Of Muscle Contraction	2/13/2021 6:00	Knee-Growth, Development and Aging	Tonia Tsinman	University of Pennsylvania
Relationships Among Patient-Specific Variables And Osteoarthritic Infrapatellar Fat Pad Metabolism	2/13/2021 6:00	Knee-Injury and Healing	Aaron Stoker	University of Missouri Columbia
Defining Osteoarthritic Patient Phenotype Clusters Based On Infrapatellar Fat Pad Metabolic Profiles	2/13/2021 6:00	Knee-Injury and Healing	Alex Lee	University of Missouri Columbia
The Cellular And Biological Responses In A Non-surgical Model Of Acl Rupture	2/13/2021 6:00	Knee-Injury and Healing	Daoyun Chen	Shanghai Sixth People's Hospital
Local Deposition Of Dexamethasone- And SiRNA Nanoparticles Loaded Shape-defined Plga Microplatesfor The Treatment Of Overload-induced Osteoarthritis	2/13/2021 6:00	Knee-Injury and Healing	Martina Di Francesco	Italian Institute of Technology

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Are We Underestimating The Urgency Of Geriatric Knee Fractures? A Comparison Of Acute Complications And Mortality Between Geriatric Knee Versus Hip Fractures	2/13/2021 6:00	Knee-Injury and Healing	Jesse Wolfstadt	Mount Sinai Hospital
Dual-Energy CT For Evaluation Of Bone Marrow Edema After Acute Knee Injury	2/13/2021 6:00	Knee-Injury and Healing	Chantal de Bakker	University of Calgary
Using The Articularis Genu To Test Peri-articular Muscle Health During Knee Osteoarthritis	2/13/2021 6:00	Knee-Injury and Healing	Mallory Crawford	LSUHSC New Orleans School of Medicine
Short-term Changes In Osteoarthritic Knee Synovial Fluid Biochemistry With 1 Year Clinical Outcomes Following Intra-articular Injection Of Amniotic Fluid	2/13/2021 6:00	Knee-Injury and Healing	Kevin Stone	The Stone Clinic, Stone Research Foundation
Muscle Activation Patterns Are Chronically Altered After Anterior Cruciate Ligament Reconstruction	2/13/2021 6:00	Knee-Injury and Healing	Payam Zandiyeh	University of Texas Health Sciences Center
The Effect Of ACL Repair With Suture Tape Augmentation On The ACL In Situ Force	2/13/2021 6:00	Knee-Injury and Healing	Jinshen He	University of Pittsburgh

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Acute Microstructural Alterations Of Subchondral Bone In Patient Knees After Anterior Cruciate Ligament Tear: An In Vivo Longitudinal Study	2/13/2021 6:00	Knee-Injury and Healing	Yizhong Jenny Hu	Bone Bioengineering Laboratory, Department of Biomedical Engineering, Columbia University
Anterior Cruciate Ligament Repair With Suture Tape Augmentation Fixed At 20° Reduces Knee Laxity: A Biomechanical Study	2/13/2021 6:00	Knee-Injury and Healing	Jinshen He	Third Xiangya Hospital of Central South University
Walking Speed Is Not Associated With Knee-related Symptoms Acutely Following ACL Reconstruction	2/13/2021 6:00	Knee-Injury and Healing	Katherine Collins	Michigan State University
The Correlation With The Screw And Bone Healing Of Tibia Anterior Flange After Medial Open Wedge Distal Tuberosity Osteotomy	2/13/2021 6:00	Knee-Injury and Healing	Fuminari UEHARA	University of the Ryukyus
PMPC Administration In An Equine Osteoarthritis Model	2/13/2021 6:00	Knee-Injury and Healing	Christian DeMoya	Boston University
T₂ Relaxation Times In The Patella Identify Differences Between Healthy And Acl Injured Individuals And Graft Types	2/13/2021 6:00	Knee-Injury and Healing	Elka Rubin	Stanford University
ACL Force Under Simulated Pivoting Loads Is Not Related To Subchondral Sagittal Slope Of The Lateral Tibial Plateau: A Cadaveric Model	2/13/2021 6:00	Knee-Injury and Healing	Erin Berube	Hospital for Special Surgery

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Probabilistic Modeling Framework To Generate Virtual Patient Cohorts For Studying Treatment For Knee Osteoarthritis	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Matthew Blomquist	University of Wisconsin-Madison
Responses Of Serum Cartilage Oligomeric Matrix Protein To A Mechanical Stimulus Are Associated With Ambulatory Joint Loading In Knee Osteoarthritis Subjects	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Jennifer Erhart-Hledik	Stanford University
Limb Alignment Plays A Minor Role On Tibio-Femoral Kinematics: A Dynamic Videofluoroscopy Study	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Barbara Postolka	Institute for Biomechanics, ETH Zürich
Knee Kinematics Differences Between Male And Female Collegiate Athletes During Double-legged Drop Jump	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Caiqi Xu	University of Pittsburgh
Knee Kinematic Symmetry During Drop Jump In Healthy Young Athletes Evaluated Using Biplane Radiography	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Caiqi Xu	University of Pittsburgh
The Role Of Intra-articular Neuronal Ccr2 In Knee Joint Pain Associated With Experimental Osteoarthritis In Mice	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Shingo Ishihara	Rush University Medical Center
Sex Differences In Spatiotemporal Gait Parameters Of Transtibial Amputees	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Tess Carswell	University of Victoria

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Kinesiophobia Mediates The Relationship Between Muscle Strength And Physical Activity In People With Knee Osteoarthritis	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Kharma Foucher	University of Illinois at Chicago
Knee Center Of Rotation Correlates To Pain Scores In Patients With Total Knee Arthroplasty	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Jessica Asay	Stanford University
Effects Of Valgus Correction For Medial Osteoarthritis Of The Knee On Knee Kinetics After Medial Open Wedge High Tibial Osteotomy.: In Vivo Biomechanical Study Using Three-dimensional Gait Analysis	2/13/2021 6:00	Knee-Structure, Function and Mechanics	KOJI IWASAKI	Hokkaido University Graduate School of Medicine
Pivoting Features Of The Knee During In Vivo Functional Activities	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Chaochao Zhou	Newton-Wellesley Hospital
Coordinate System Requirements To Determine Tibiofemoral Motions Free From Kinematic Cross-talk Errors	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Maury Hull	University of California Davis
Bone Density Distribution Pattern Of Lateral Wall Of The Femoral Intercondylar Notch; Speculation On The Direct Insertion Of The Femoral Acl Attachment	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Yutaro Sugawara	Hokkaido University

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Athletes Who Developed Radiographic Knee Osteoarthritis 6-years After ACL Reconstruction Walked With Asymmetrical Quadriceps Muscle Activity Before Surgery	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Naoaki Ito	University of Delaware
Asymmetry In Knee Kinematics Revealed Through Dynamic Biplane Radiography Of Fast Running	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Kyohei Nishida	University of Pittsburgh
Variation In The Patellar Tendon Moment Arm Identified With An Improved Measurement Framework	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Oliver Dandridge	Imperial College London
Using Dynamic In Vivo Kinematics For Subject-specific Calibration Of Knee Ligament Properties	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Clare Fitzpatrick	Boise State University
Semi-automated Histological Quantification Of Trabecular Bone Area In Rodent Knee OA Models	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Jacob Griffith	University of Florida
Effect Of Transverse Plane Alignment On Knee Contact Mechanics During Walking	2/13/2021 6:00	Knee-Structure, Function and Mechanics	David Penaranda	New York University
Model-based Predictions Of Acl Force In Populations At Increased Risk Of Noncontact Acl Rupture: Cadaveric Evaluation	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Swithin Razu	Hospital for Special Surgery

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Effects Of An Exercise Program Involving Tibial Internal Rotation On Symptoms, Physical Function, And External Knee Adduction Moment During Gait In Patients With Knee Osteoarthritis: A Randomized Controlled Trial	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Goro Watanabe	Hiroshima International University
The Lateral Femoral Condyle Index Is Not A Risk Factor For Non-Contact Anterior Cruciate Ligament Injury	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Emma Nowak	University of Notre Dame
Baseline Knee Adduction Moment Is Related To 9-year Changes In Patient-reported Outcomes In Healthy Overweight Adults	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Jennifer Erhart-Hledik	Stanford University
Is Goniometer Accurate Enough For Aiding Knee Surgeries?	2/13/2021 6:00	Knee-Structure, Function and Mechanics	JEFFRY HARTANTO	National University of Singapore
Measurement Of 6 By 6 Stiffness Matrix Of The Knee: Implications For Knee Biomechanics	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Yukun Zhang	University of Pittsburgh
Application Of Contact Surface Model For Modelling Subject-specific Human Tibiofemoral Joint Motion	2/13/2021 6:00	Knee-Structure, Function and Mechanics	JEFFRY HARTANTO	National University of Singapore
The Prevalence And Anatomical Characteristics Of The Ligamentum Mucosum - A Meta-analysis	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Pawel Pasieka	Jagiellonian University Medical College

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Lateral Patellofemoral Ligament Reconstructions: A Cadaveric Investigation Of Two Techniques	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Hailey Huddleston	Rush University Medical Center
Posterior Rotation Of The Tibial Condyle Influences Insall-salvati Ratio	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Ryuji Nagamine	Fukuoka Tokushukai Medical Center
Sagittal Alignment Of Diaphysis, Metaphysis And Epiphysis Of The Distal Femur	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Ryuji Nagamine	Fukuoka Tokushukai Medical Center
Functional Biomechanical Testing For Anterior Drawer And Pivot-shift In Acl-deficient And Acl-reconstructed Knees With Or Without Meniscus Pathology	2/13/2021 6:00	Knee-Structure, Function and Mechanics	James Cook	University of Missouri Columbia
The Effect Of Pelvic Width On The Knee Adduction Moment; Speculation Using Two-dimensional Parameter	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Ryota Kuzuhara	Dept. of Orthopaedic Surgery, Faculty of Medicine and Graduate School of Medicine, Hokkaido University
Simulation-based Exploration Of The Anterior Drawer Test In Pediatric Populations Using Febio	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Alexandria Mallinos	Cleveland State University
Biomechanical Changeshad Already Occurred In The Gait Of Asymptomatic Elderly People	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Kengo Ukishiro	Dept. of Rehabilitation, Hakodate Orthopedic Clinic

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Uninjured Knee Is A Stable Control For Modeling Variables 3 To 6 Months After Anterior Cruciate Ligament Reconstruction	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Kelsey Neal	The University of Delaware
_{Correlation Between Tibial Bone Morphology And Changes In Joint Line Convergence Angle}	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Junya Itou	Tokyo Women's Medical University
Relatively Broad Femoral Condylar Notches (Large Notch Width Indices) May Protect Portuguese Water Dogs From ACL Rupture	2/13/2021 6:00	Knee-Structure, Function and Mechanics	John Skedros	University of Utah
Asymmetries In Patellofemoral Contact Forces 3 Months After ACL Reconstruction Differ By Graft Type	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Jack Williams	University of Delaware
Gastrocnemius Contracture Leads To Altered Knee Motion And Increased Contact Pressures	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Rachel Lenhart	Medical College of Wisconsin
Multimodal Imaging Technique For Estimation Of In Vivo Quadriceps Force Magnitude During Dynamic Activity	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Zoë Englander	Duke University
The Optimal Femoral Tunnel Position For Lateral Extra-articular Tenodesis Is Posterior-proximal To The Lateral Femoral Epicondyle	2/13/2021 6:00	Knee-Structure, Function and Mechanics	Anne Vosselman	Haaglanden Medisch Centrum

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Sex Specific Outcomes Following Anterior Cruciate Ligament Reconstructions (aclr): A Systematic Review And Meta-analysis	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Anthony Mok	University of Kansas
A Novel Hyperosmolar Saline Solution Mitigates Inflammatory And Degradative Responses From Articular Cartilage	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Lasun Oladeji	University of Missouri Columbia
Immunohistochemistry On Osteochondral Allografts Suggest Immunological Impact In Failure Mechanisms	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Josephine Luk	University of Missouri Columbia
Customized Individually-made Total Knee Implants Are Associated With Similar Improvements In Patient-reported Outcomes As Conventional Implants	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Carl Herndon	Columbia University
In Vivo Cement Penetration In Total Knee Arthroplasty Using High And Low Viscosity Cements - The Terms High Viscosity And Low Viscosity Are Misleading	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Anya Hall	University of Miami Miller School of Medicine
In Situ Repair Of Segmental Loss Posterior Lateral Meniscal Root Tears And Meniscofemoral Ligament Imbrication In The ACL Reconstructed Knee	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Alex Brady	SPRI

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Joint Contact Force Model For Patients With Knee Height Asymmetry	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Jacqueline Simon	Marquette University
Human And Ovine Osteochondral Allografts Exhibit Similar Biomechanical And Chondrocyte Viability Responses During Press-fit	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Richard Suderman	Lunenfeld-Tanenbaum Research Institute
Assessment Of Bicortical Suspension Device Fixation For Proximal Tibiofibular Instability: A Biomechanical Study	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Nahir Habet	Department of Orthopaedic Surgery, Atrium Health Musculoskeletal Institute
Improvement Of Knee Stability With Tibial Condylar Valgus Osteotomy For Varus Knee	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Yasushi Oshima	Nippon Medical School
Longitudinal Assessments For Knee Range Of Motion After Large Osteochondral Allograft Transplantations	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Kylee Rucinski	University of Missouri Columbia
Computational Simulation Of MPFL Reconstruction Stabilizing The Patella During A Pivot Landing	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Jeffrey Watts	Cleveland Clinic Akron General
Clinical Results Of Initial Cases With A New Total Knee Arthroplasty System	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Jefferson Morrison	Southern Joint Replacement Institute
Less Elongation For Continuous-loop Compared To Suture-loop Fixation For All Soft-tissue Quadriceps Tendon Grafts	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Christopher Gibbs	University of Pittsburgh Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Perspectives On Gamification Of An Interactive Health Technology For Pediatric ACL-R Post-operative Rehabilitation	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Michelle Riffitts	University of Pittsburgh
The Development Of A Surgical Readiness Interview Tool For Patients To Improve Conversation On Modifiable Risk Factors Prior To Total Joint Arthroplasty	2/13/2021 6:00	Knee-Surgical and Non-Surgical Interventions	Kristen Barton	University of Calgary
Mechanical And Microstructural Properties Of The Anterior And Posterior Meniscal Roots	2/13/2021 6:00	Meniscus - Growth, Development and Aging	Peter Chang	Department of Orthopedic Surgery, Washington University
Tgf-ß Production And Inflammatory Biomarker Release By The Injured Meniscus Ex Vivo	2/13/2021 6:00	Meniscus-Injury and Healing	Farrah Monibi	Hospital for Special Surgery
Review Of Rehabilitation Protocols Designated For Meniscal Repairs: A Systematic Review And Analysis	2/13/2021 6:00	Meniscus-Injury and Healing	David Scheffer	University of Kansas School of Medicine
Blood Induces Catabolism Of Meniscus Tissue	2/13/2021 6:00	Meniscus-Injury and Healing	Kevin Betsch	Duke University
Anti-inflammatory Nanoformulation For Joint Repair	2/13/2021 6:00	Meniscus-Injury and Healing	Francesca Taraballi	The Houston Methodist Research Institute
On The Mechanisms Of Energy Dissipation Of The Meniscus: A Pilot Study	2/13/2021 6:00	Meniscus-Structure, Function and Mechanics	Francesco Travascio	University of Miami

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Combined Effects Of TGF-β1 And Chondroitinase ABC On Fiber Formation And Alignment In Tissue Engineered Meniscus	2/13/2021 6:00	Meniscus-Structure, Function and Mechanics	Serafina Lopez	Cornell University
Difference In The Joint Space Of The Medial Knee Compartment Between Full Extension And Rosenberg Weight-bearing Radiographs	2/13/2021 6:00	Meniscus-Structure, Function and Mechanics	Yugo Miura	Center for Stem Cell and Regenerative Medicine, Tokyo Medical and Dental University
Degeneration Affects Local Meniscus Extrusion	2/13/2021 6:00	Meniscus-Structure, Function and Mechanics	Andreas Seitz	Institute of Orthopaedic Research and Biomechanics, Ulm University Medical Centre
Altered Meniscus Mechanics Due To CT Contrast Exposure Is Not Explained By Osmolality And Ionic Strength Alone	2/13/2021 6:00	Meniscus-Structure, Function and Mechanics	Hollis Crowder	Stanford University
Degeneration Decreases Elastic Properties Of Human Lateral Menisci	2/13/2021 6:00	Meniscus-Structure, Function and Mechanics	Daniela Warnecke	Institute of Orthopaedic Research and Biomechanics
Anisotropic And Inhomogeneous Mechanical Properties Of Porcine Meniscus: An AFM Study	2/13/2021 6:00	Meniscus-Structure, Function and Mechanics	Alicia Jackson	University of Miami
Maneuvering Through The Cell Traffic: Dividing The Merging Lanes Of Chemotaxis And Catabolism By Untangling Signaling Pathways Involved In Cell-Based Meniscus Healing	2/13/2021 6:00	Meniscus-Treatment and Therapeutics	JAY TRIVEDI	Rhode Island Hospital, Brown University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Treatment Monitoring Capabilities Of Serum And Urine Biomarkers For Meniscal Allograft Transplantation In A Preclinical Canine Model	2/13/2021 6:00	Meniscus-Treatment and Therapeutics	Aaron Stoker	University of Missouri Columbia
Distribution Of Loaded Cryoprotectants In Meniscal Tissues For Ice-free Cryopreservation	2/13/2021 6:00	Meniscus-Treatment and Therapeutics	Shangping Wang	Clemson University
All-inside And Inside-out Techniques With The Cross Tie Grip Suture Are Biomechanically Equivalent In Repairing Radial Meniscal Tears In A Porcine Model	2/13/2021 6:00	Meniscus-Treatment and Therapeutics	Yuta Nakanishi	Kobe University Graduate School of Medicine
The Effect Of Medial Meniscus Arthroscopic Centralization On Kinematics In ACL Reconstructed Knees	2/13/2021 6:00	Meniscus-Treatment and Therapeutics	Hiroko Ueki	University of Pittsburgh
Biomechanical Analysis Of Segmental Medial Meniscus Transplantation In A Human Cadaveric Model	2/13/2021 6:00	Meniscus-Treatment and Therapeutics	Jon Miles	Steadman Philippon Research Institute
Ovine Knee Kinematics And Contact Pressures Measured In A Gait Simulator For Meniscus Replacement Evaluation	2/13/2021 6:00	Meniscus-Treatment and Therapeutics	Maria Kristina Bartolo	Imperial College London
In Vivo Kinematics, Strength, And Contact Path After Reverse Shoulder Arthroplasty	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Ajinkya Rai	University of Pittsburgh Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Opioid Use Disorder And Implant-related Complications Following Primary Total Shoulder Arthroplasty: A Matched-controlled Study	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Miriam Weisberg	Maimonides Medical Center
The Effect Of Glenosphere Lateralization And Inferiorization On Deltoid Force In Reverse Total Shoulder Arthroplasty	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Alex Brady	SPRI
Biomechanical Comparison Of Stemless Humeral Components In Total Shoulder Arthroplasty	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Raymond Chen	University of Rochester
Changes In Patient Reported Outcome Scores Are Associated With Shoulder Kinematics After Shoulder Replacement	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Francine Castillo	UC San Francisco, Department of Orthopaedic Surgery
Preoperative Anemia As A Risk Factor For Complications Following Total Shoulder Arthroplasty	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Kevin Kashanchi	Stony Brook University School of Medicine
Prevalence Of Patient Safety Indicator Events And Mechanical Complications In Patients Undergoing Shoulder Arthroplasty	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	David Kovacevic	Columbia University Medical Center
Predictors Of Extended Length Of Stay Following RTSA For Proximal Humerus Fractures	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Kevin Kashanchi	Stony Brook University School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Clinical Outcomes Following Reverse Total Shoulder Arthroplasty With Tuberosity Excision For Treatment Of Proximal Humerus Fractures: A Case Series.	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Taylor VanHelmond	Florida Atlantic University
Radial Head Foveal Curvature Is Related To Cartilage Thickness	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Kathryn Smolinski	Allegheny General Hospital
The Effect Of Glenoid Component Inclination In Rotator Cuff Muscles After Total Shoulder Arthroplasty	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Andreas Kontaxis	Hospital for Special Surgery
The Conversion Rate Of Proximal Humerus Fractures To Shoulder Arthroplasty	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Sarah Bhattacharjee	University of Chicago Pritzker School of Medicine
Indentation Depth As An Objective Supplement To Surgeon 'Thumb Testing'	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Jacob Reeves	The University of Western Ontario
The The Impact Of A Novel Zoned Conformity Glenoid On Rotator Cuff Strain In Total Shoulder Arthroplasty	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Melissa Wright	MedStar Union Memorial Hospital
Correlating Short-term Clinical Outcomes Of Total Shoulder Arthroplasty With Glenoid Version Correction	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Akshar Thakkar	Northwestern Medicine
Finite Element Modelling Of Glenoid Bone Loss And Baseplate Fixation In Reverse Total Shoulder Arthroplasty	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Hai Yao	Clemson University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Novel Method To Evaluate Primary Stability Of Cementless Humeral Stems	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Saandeep Mani	Zimmer Biomet
Biological Sex Impacts Perioperative Complications Following Reverse Shoulder Arthroplasty For Proximal Humeral Fracture	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	David Kovacevic	Columbia University Medical Center
The Effect Of Reverse Total Shoulder Arthroplasty Screw Fixation Technique On Baseplate Micro-motion	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Joshua Giles	University of Victoria
Accuracy Of A Novel Method For Assessing Glenoid Micromotion In Mechanical Testing Of Reverse Shoulder Arthroplasty	2/13/2021 6:00	Shoulder and Elbow-Arthroplasty	Lawrence Torkan	Queen's University
Getting Back On-track: Preoperative Planning For Latarjet In The Setting Of Glenohumeral Instability With Bone Loss	2/13/2021 6:00	Shoulder and Elbow-Diagnostics	Joseph Lamplot	Emory University
Repeatability Of The Load And Shift Test Of The Shoulder Using A Novel Quantitative Ultrasonographic Technique	2/13/2021 6:00	Shoulder and Elbow-Diagnostics	Satoshi Takeuchi	University of Pittsburgh
The Association Between Radiologic Severity Of Rotator Cuff Pathology And Supraspinatus Weakness On Biomechanical Assessment	2/13/2021 6:00	Shoulder and Elbow-Diagnostics	Michael Kucharik	Massachusetts General Hospital

Presentation Title	Date & Time	Session Title	Primary Author	Institution
An Improved Quantitative Ultrasonographic Technique To Assess Anterior Translation Of The Glenohumeral Joint	2/13/2021 6:00	Shoulder and Elbow-Diagnostics	Satoshi Takeuchi	University of Pittsburgh
Statistical Shape Models May Accurately Predict Subacromial Impingement Of Shoulder				
Fractures In The Absence Of CT Images	2/13/2021 6:00	Shoulder and Elbow-Diagnostics	Michael Hast	University of Pennsylvania
Early Osteoarthritis After Neonatal Brachial Plexus Palsy In A Mouse Model	2/13/2021 6:00	Shoulder and Elbow-Growth, Development and Aging	Lynn Ann Forrester	Columbia University Medical Center
NSAIDs Prevents Cellular Senescence Of Tendon-derived Stem Cells: A In Vitro Study	2/13/2021 6:00	Shoulder and Elbow-Growth, Development and Aging	Zhuochang Cai	Shanghai Jiao Tong University Affiliated Sixth People's Hospital
Growth Factor-directed, Multi-tissue Regeneration Of Muscle And Tendon For Rotator Cuff Repair	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Ke Li	Institute for Tissue Engineering and Regenerative Medicine; and School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong
Machine Learning Prediction Of Shoulder Patient At-home Physiotherapy	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Philip Boyer	Sunnybrook Research Institute (SRI)
Hypoxia In Massive Rotator Cuff Muscles After Massive Tendon Tears In Mice	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	He Zhang	Veterans Affair Health Care System

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Relative Efficacy Of Three Nonsurgical Treatments For Calcific Tendinitis: Physical Therapy, Steroid Injection, And Ultrasound-guided Aspiration	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Robin Dunn	University of Pittsburgh
Effect Of Nanofiber-based Recombinant Human Parathyroid Hormone Sheet Engineered With 3D Printing For Tendon-to-Bone Healing In A Chronic Rotator Cuff Tear Model Of Rabbit	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	JIAN HAN	Yanbian University Hospital
Relaxin-2 Receptor In Patients With Shoulder Instability	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Li Yue	Warren Alpert Medical School of Brown University and Rhode Island Hospital
Using Pitch Tracking Data To Identify Risk Factors For Medial Ulnar Collateral Ligament Reconstruction In Major League Baseball Pitchers	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Landon Cohen	University of Southern California
Amibegron Mediated Activation Of Beige Fat Declines With Age In Mouse Models Of Delayed Rotator Cuff Repair	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Agustin Diaz	University of California, San Francisco
Predictors Of Adverse Events Following Surgical Treatment Of Proximal Humerus Fractures	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Kevin Kashanchi	Stony Brook University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Return To Sport Testing Vs Time-based Clearance In Posterior Shoulder Instability	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Robin Dunn	University of Pittsburgh
A Comparison Of Cone Beam Computed Tomography, Standard Computed Tomography, And Plain Radiographs In The Evaluation Of A Medial Epicondyle Humerus Fracture	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Garrett Rupp	University of California San Diego
Comparing Outcomes Of Anterior Versus Posterior Shoulder Instability: A Systematic Review And Meta Analysis	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Matthew Vopat	University of Kansas Medical Center - Wichita
Comparing Sex Specific Outcomes Following Rotator Cuff Repair: A Meta-analysis	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Bryan Vopat	University of Kansas SOM
Quantifying Shoulder Activity After Rotator Cuff Repair: Technique And Preliminary Results	2/13/2021 6:00	Shoulder and Elbow-Injury and Healing	Matthew Ruder	Henry Ford Hospital
3D Strain Analysis Of Osteoarthritic Trabecular Bone Within The Humeral Head Subjected To Stepwise Compressive Loads	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Jonathan Kusins	Western University
Rapid Scapula Reconstruction For Surgical Planning Using Statistical Shape Modeling	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Yichen Huang	University of Melbourne

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The Effect Of Pulling Angle On Rotator Cuff Mechanical Properties In A Canine Ex Vivo Model	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Qian Liu	The Second Xiangya Hospital
Quantification Of The Passive Behavior Of The Glenohumeral Joint: A Biomechanical Study	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Kyle Snethen	Zimmer Biomet
Quantitative And Qualitative Surgical Anatomy Of The Acromioclavicular Joint Capsule And Ligament- A Cadaveric Study	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Alex Brady	SPRI
Alteration Of Elbow Joint Contact Area In Symptomatic Valgus Instability Of The Elbow In Baseball Pitchers	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Kyosuke Numaguchi	Hokkaido University hospital
Rotator Cable Injury Does Not Reduce Abduction Force	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Michael Smolinski	University of Pittsburgh
Glutamate Expression In Subacromial Bursa Is Associated With Rotator Cuff Tear And With Preoperative Pain	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Hyung Bin Park	Gyeongsang National University Hospital
Biomechanics Of Long Head Of Biceps Transfer As A Dynamic Stabilizer For Anteroinferior Glenohumeral Instability	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Mario Lobao	MedStar Union Memorial Hospital

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Deactivation Of The Supraspinatus And Infraspinatus Muscles Is Biomechanically Equivalent To Transection Of These Structures	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Aaron Chamberlain	Washington University
Shoulder Muscles With Large Lines Of Action Increase Glenohumeral Stability By Increasing Their Intrinsic Stiffness	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Constantine Nicolozakes	Northwestern University
Rotator Crescent Area Is Important To Force Transmission	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Ryan Blake	University of Pittsburgh
Morphology Of The Insertion Of The Superior Capsule Anterior Glenoid	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Michael Smolinski	University of Pittsburgh
Reconstruction With Distal Tibia Allograft: Biomechanical Impact Of Fixation And Presence Of A Retained Lateral Cortex	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Stephen Parada	Medical College of Georgia at Augusta University
Evaluation Of Correlation Between Throwing Elbow Torque Measured By Wearable Sensor And Elasticity Of Flexor Pronator Muscles Assessed By Ultrasound Shear Wave Elastography	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Tomoya Yoshikawa	Kobe University Graduate School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Curvature Quantification Of The Radial Intramedullary Canal	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Margaret Kirtley	Yale School of Medicine
Morphology Of The Rotator Cuff Humeral Footprints	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Michael Smolinski	University of Pittsburgh
Three-dimensional Kinematics Of The Scapula Using Four Dimensional Computed Tomography	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	James Hunter	Western University
Full-field Experimental Analysis Of The Influence Of Trabecular Microstructural Parameters On The Mechanical Properties Of Trabecular Bone Within Osteoarthritic Humeral Heads	2/13/2021 6:00	Shoulder and Elbow-Structure, Function and Mechanics	Jonathan Kusins	Western University
Cigarette Smoking Increases Risk For Complications Following Arthroscopic Rotator Cuff Repair	2/13/2021 6:00	Shoulder and Elbow-Surgical and Non-Surgical Interventions	Kevin Kashanchi	Stony Brook University School of Medicine
Muscle Strength Does Not Relate To Glenohumeral Kinematics In Subjects With Symptomatic Isolated Supraspinatus Tears Prior To Exercise Therapy	2/13/2021 6:00	Shoulder and Elbow-Surgical and Non-Surgical Interventions	Luke Mattar	University of Pittsburgh
Irreparable Rotator Cuff Tears: Superior Capsular Reconstruction Vs. Marginal Convergence	2/13/2021 6:00	Shoulder and Elbow-Surgical and Non-Surgical Interventions	Neel Patel	University of Pittsburgh

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Adipose Stem Cell-derived Exosomes As A Macrophage-based Treatment For Chronic Rotator Cuff Tendinopathy: From A Mouse Model To A Study In Human Tissue	2/13/2021 6:00	Shoulder and Elbow-Surgical and Non-Surgical Interventions	Chongyang Wang	Shanghai sixth people's hospital
Obesity As A Risk Factor For Complications Following Arthroscopic Rotator Cuff Repair	2/13/2021 6:00	Shoulder and Elbow-Surgical and Non-Surgical Interventions	Kevin Kashanchi	Stony Brook University School of Medicine
Rotator Cuff Repair Tissue Elongation At 3 Months Following Arthroscopic Repair	2/13/2021 6:00	Shoulder and Elbow-Surgical and Non-Surgical Interventions	Rebekah Lawrence	Henry Ford Health System
Comparing Outcomes Of Rotator Cuff Repair Following Acute Tendon Ruptures And Concurrent Shoulder Dislocations Vs. Acute Tendon Ruptures Without Shoulder Dislocations	2/13/2021 6:00	Shoulder and Elbow-Surgical and Non-Surgical Interventions	Adam Eibel	University of Pittsburgh
Mid-term Clinical Outcomes Of Arthroscopic Rotator Cuff Repair With Net-like Daff Procedure	2/13/2021 6:00	Shoulder and Elbow-Surgical and Non-Surgical Interventions	Tomohiro Uno	Department of Orthopaedics Surgery, Yamagata University Faculty of Medicine
Predictors Of Extended Length Of Stay Following ORIF For Proximal Humerus Fractures	2/13/2021 6:00	Shoulder and Elbow-Surgical and Non-Surgical Interventions	Kevin Kashanchi	Stony Brook University School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Passive Range Of Motion Does Not Relate To Glenohumeral Kinematics In Subjects With Symptomatic Isolated Supraspinatus Tears Prior To Exercise Therapy	2/13/2021 6:00	Shoulder and Elbow-Surgical and Non-Surgical Interventions	Luke Mattar	University of Pittsburgh
Nrg/erbb Signaling In Neonatal Muscle Growth And Neuromuscular Contractures	2/13/2021 6:00	Skeletal Muscle-Diseases and Disorders	QING GOH	Cincinnati Children's Hospital Medical Center
Identifying A Common Muscle Contracture Phenotype Between Cerebral Palsy And Brachial Plexus Birth Injury	2/13/2021 6:00	Skeletal Muscle-Diseases and Disorders	Roger Cornwall	Cincinnati Children's Hospital Medical Center
Msx1 Expression Is Promoted With Hypoxia In Muscle Cells In Vitro	2/13/2021 6:00	Skeletal Muscle-Diseases and Disorders	Yong Li	Western Michigan University
Analysis Of Muscle Atrophy And Fibrosis In Fast And Slow Muscles In A Rat Model Of Arthritis	2/13/2021 6:00	Skeletal Muscle-Diseases and Disorders	Yoichiro Kamada	KYOTO PREFECTURAL UNIVERSITY OF MEDICINE
Emg Signal Analysis For Ovine Models	2/13/2021 6:00	Skeletal Muscle-Diseases and Disorders	Aaron Henry	Texas A&M University
Ablation Of Non-myogenic Progenitor Cells As A New Therapeutic Approach To Duchenne Muscular Dystrophy	2/13/2021 6:00	Skeletal Muscle-Diseases and Disorders	Mikhail Kolonin	University of Texas Health Science Center at Houston
UCP1 Is Not Required For Fatty Infiltration Of Muscle In C57BL6 Mice	2/13/2021 6:00	Skeletal Muscle-Diseases and Disorders	Gretchen Meyer	Washington University School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The Role Of PDGFRβ Expressing Cells In Skeletal Muscle During Aging	2/13/2021 6:00	Skeletal Muscle-Growth, Development and Aging	Lu Aiping	Steadman Philippon Research Institute
Co-application Oforal Magnesium Supplementation And Low-magnitude, High-frequency Vibration Treatment Attenuates Sarcopeniavia Pi3k/akt/mtor Pathway	2/13/2021 6:00	Skeletal Muscle-Growth, Development and Aging	Can Cui	The Chinese University of Hong Kong
Improving Muscle Regeneration After Ischemia-reperfusion Injury With Mirabegron	2/13/2021 6:00	Skeletal Muscle-Growth, Development and Aging	Mengyao Liu	UCSF Orthopaedic Surgery
Activated Vitamin D Enhances Acetylcholine Receptor Clustering At The Neuromuscular Junction	2/13/2021 6:00	Skeletal Muscle-Growth, Development and Aging	Hiroyuki Tomita	Nagoya University
Naturally Occurring Flavonoids Attenuate Senescence In Human Banked Adipose-derived Stem Cells	2/13/2021 6:00	Skeletal Muscle-Growth, Development and Aging	Heidi Kloser	Steadman Philippon Research Institute
Advanced Glycation-End Product Crosslinks Support Myoblast Proliferation But Inhibit Differentiation	2/13/2021 6:00	Skeletal Muscle-Growth, Development and Aging	Lucas Olson	Virginia Commonwealth University
Endogenous Conversion Of N-6 To N-3 Polyunsaturated Fatty Acids Facilitates Cardiotoxin-Induced Skeletal Muscle Repair In Fat-1 Mice	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Zhenggang Wang	Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Beta-3 Adrenergic Receptor Agonists Promote Muscle Recovery After Limb Immobilization Disuse In Mice	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Zili Wang	University of California, San Francisco
Fk-506 Loaded Biomimetic Sponges Improve Muscle Structure And Function Following Volumetric Muscle Loss	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Koyal Garg	Saint Louis University
Biomimetic Sponges Improve Muscle Function Following Composite Muscle-bone Trauma	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Koyal Garg	Saint Louis University
The Neuronal Differentiation Potential Of Hypoxia-induced Muscle Cells In Vitro	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Rachael Tolsma	Western Michigan Homer Stryker MD School of Medicine
Hindlimb Immobilization Increases Il-1β And Mmp13 Expression In Skeletal Muscle Fibro-adipogenic Progenitor Cells	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Emily Parker	Augusta University
A Novel Mouse Model Of Discogenic Lumbar Paraspinal Muscle Degeneration	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Michael Davies	University of California, San Francisco
Testing Pharmacological Adjuvants To Enhance Oxidative Capacity Of The Remaining Muscle After VML Injury	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Jennifer McFaline-Figueroa	University of Georgia

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Delivery Of Faps In Hyaluronic-based Hydrogel Enhances Differentiation Potential And Muscle Regeneration In Volumetric Muscle Loss Injury	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Mengyao Liu	UCSF Orthopaedic Surgery
Myoblasts-based Muscle Regeneration In Volumetric Muscle Loss Model Of Balb/c Nude Mice	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Jae Youn Yoon	Dongguk University Ilsan Hospital
Hypoxic Tolerance Induction Of Muscle Cells In A Low Oxygen Stimulation	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Yong Li	Western Michigan University
Hypoxia Stimulated Exosome Release And The Regulation Of Muscle Cell Differentiation	2/13/2021 6:00	Skeletal Muscle-Injury and Healing	Loyall Harris	Western Michigan University, Homer Stryker MD School of Medicine
Sodium Nitrite Ameliorates Skeletal Muscle Functional Ischemia In Duchenne Muscular Dystrophy	2/13/2021 6:00	Skeletal Muscle-Structure, Function and Mechanics	Matthew Sherrier	University of Pittsburgh Medical Center
Short-term Effects Of Blood Flow Restriction Training On Equine Skeletal Muscle Oxidative Capacity	2/13/2021 6:00	Skeletal Muscle-Structure, Function and Mechanics	Sherry Johnson	Colorado State University
Gender Difference Of Age-related Changes Of Timed Up And Go Test -a Motion Analysis Study Using Inertial Measurement Unit-	2/13/2021 6:00	Skeletal Muscle-Structure, Function and Mechanics	Kohei Nishizawa	Keio University School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Genetic Variability Affects Muscle Strength But Not Response To Unloading In Founder Strains Of Diversity Outbred Mice	2/13/2021 6:00	Skeletal Muscle-Structure, Function and Mechanics	Jasmin Zeineddine	Virginia Commonwealth University
Collagen Architecture Drives Stiffness In Fibrotic Muscle Of Dystrophic Mice	2/13/2021 6:00	Skeletal Muscle-Structure, Function and Mechanics	Lucas Smith	University of California Davis
Integration Of Neural Architecture Within A Finite Element Framework For Improved Neuromusculoskeletal Modeling	2/13/2021 6:00	Skeletal Muscle-Structure, Function and Mechanics	Clare Fitzpatrick	Boise State University
Infiltration Of Intramuscular Adipose Tissue Impairs Skeletal Muscle Contraction	2/13/2021 6:00	Skeletal Muscle-Structure, Function and Mechanics	Gretchen Meyer	Washington University School of Medicine
Micronenergy Acoustic Pulses (MAP) Promotes Muscle Regeneration After Ischemia Reperfusion Injury (IRI)	2/13/2021 6:00	Skeletal Muscle-Treatment and Therapeutics	He Zhang	Veterans Affair Health Care System
Ageing-related Neuromuscular Junction Degeneration In Sarcopenia Is Attenuated By Vibration Treatment	2/13/2021 6:00	Skeletal Muscle-Treatment and Therapeutics	Zhengyuan Bao	The Chinese University of Hong Kong
Impact Of Human Epidermal Growth Factor On Tissue Engineered Skeletal Muscle Structure And Function	2/13/2021 6:00	Skeletal Muscle-Treatment and Therapeutics	Olga Wroblewski	University of Michigan, Ann Arbor

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Micronenergy Acoustic Pulses (MAP) Prevents Disuse-Induced Muscle Atrophy By Inhibiting Myostatin	2/13/2021 6:00	Skeletal Muscle-Treatment and Therapeutics	He Zhang	Veterans Affair Health Care System
Non-thermal Infrared Light Induces Macrophage Differentiation To A Protective Phenotype In A Murine Hindlimb Model Of Ischemia-reperfusion Injury	2/13/2021 6:00	Skeletal Muscle-Treatment and Therapeutics	Tyler Compton	Medical College of Wisconsin
Preoperative MRI-based Vertebral Bone Quality (VBQ) Score Assessment In Patients Undergoing Lumbar Spinal Fusion	2/13/2021 6:00	Spine-Diagnostics	Stephan Salzmann	Hospital for Special Surgery
Artificial Intelligence For Vertebral Quality And Fracture Assessment	2/13/2021 6:00	Spine-Diagnostics	Abhinav Suri	University of Pennsylvania
Automatic Detection And Mapping Of Vertebral Body Modic Changes	2/13/2021 6:00	Spine-Diagnostics	Kenneth Gao	University of California, San Francisco
A Comprehensive MRI Analysis Of Paraspinal And Psoas Muscle Size, Lean Muscle, And Fatty Infiltration In Patients Undergoing Lumbar Spinal Fusion	2/13/2021 6:00	Spine-Diagnostics	Stephan Salzmann	Hospital for Special Surgery
Assessment Of Lumbar Paraspinal Muscle Fat Infiltration And Material Properties Using Magnetic Resonance Imaging	2/13/2021 6:00	Spine-Diagnostics	Megan Co	The Ohio State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
An Algorithm For Using Deep Learning Convolutional Neural Networks With Three-dimensional Depth Sensor Imaging In Scoliosis Detection	2/13/2021 6:00	Spine-Growth, Development and Aging	Terufumi Kokabu	Department of Orthopaedic Surgery, Hokkaido University Graduate School of Medicine
P38 Mitogen-activated Protein Kinase Is Involved In Interleukin-6 Secretion From Human Ligamentum Flavum-derived Cells Stimulated By Tumor Necrosis Factor-α	2/13/2021 6:00	Spine-Growth, Development and Aging	Kiyoshi Yagi	Nagoya City University
Effect Of Adiponectin Receptor Agonist Adiporon On Human Intervertebral Disc Cell In A Three-dimensional Culture	2/13/2021 6:00	Spine-Growth, Development and Aging	Hiroki Ohnishi	Kobe University
Association Of Central Sensitivity With Chronic Low Back Pain In A Population-based Cohort Study	2/13/2021 6:00	Spine-Growth, Development and Aging	Koji Akeda	Mie University Graduate School of Medicine
Papaverine As A Neuroprotection Drug For Spinal Cord Injury Targeting On Blood-spinal Cord Barrier Protection.	2/13/2021 6:00	Spine-Injury, Healing and Pain	Yuki Suzuki	Department of Orthopaedic Surgery, Faculty of Medicine and Graduate School of Medicine, Hokkaido University
Clustering And Dimensional Reduction For Visualizing Back Pain Phenotypes: Data From The OAI	2/13/2021 6:00	Spine-Injury, Healing and Pain	John Martin	Duke University
Immunophenotyping Of Whole Blood In Patients Experiencing Low Back Pain	2/13/2021 6:00	Spine-Injury, Healing and Pain	Lauren Lisiewski	Columbia University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Bone Metabolism Is An Early Predictor Of Spinal Fractures	2/13/2021 6:00	Spine-Injury, Healing and Pain	Helene Chesnais	University of Pennsylvania
Pressure-clamped Single-fiber Recording Enabled To Record Impulses On SingleAβ-,Aδ-, And C-fibers	2/13/2021 6:00	Spine-Injury, Healing and Pain	Mayumi Sonekatsu	Wakayama Medical University
Insufficient And High Preoperative Vitamin D Levels Increase Incidental Durotomy Risk During Lumbar/Thoracolumbar Surgery	2/13/2021 6:00	Spine-Injury, Healing and Pain	Aron Sulovari	University of Rochester Department of Orthopaedics and Rehabilitation
Systematic Review Of Outcome Following Total Disc Arthroplasty In Studies With A Minimum Of Five Years Of Follow-up	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Jenna Wahbeh	The J. Vernon Luck, Sr., M.D. Orthopaedic Research Center
Biomechanics Of Muscle Atrophy In Transforaminal Lumbar Interbody Fusion: A Finite Element Study	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Yogesh Kumaran	University of Toledo Engineering Center for Orthopedic Research Excellence
Cyclic Loading Enhances Small Molecule Transport In The 8-week Degenerated Rabbit Intervertebral Disc	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Eric Ledet	Rensselaer Polytechnic Institute
Evaluating Neutral Zone Calculation Methods To Track Human Spine Instability During Injury And Implant Testing	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Theodor Di Pauli von Treuheim	Mount Sinai School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Biomechanical Evaluation Of Acute Lumbar Endplate Injury	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Dalin Wang	Leni and Peter W. May Department of Orthopaedics, Icahn School of Medicine at Mount Sinai
Adgrg6 Signals Through Camp/creb Signaling To Regulate Cartilaginous And Connective Tissue Homeostasis Of The Spine, Modeling Progressive Idiopathic Scoliosis	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Zhaoyang Liu	University of Texas at Austin
Temperature Sensitivity Of Bone Foam Impacts Screw Pull-out Results	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Joseph Fredericks	Stryker Spine
Chronic Mechanical Neck Pain: Intersegmental Coupling Patterns During Lateral Bending And Axial Rotation	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Arin Ellingson	University of Minnesota
Thoracic Bone Mineral Density Measured By Quantitative Computed Tomography In Patients Undergoing Spine Surgery	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Stephan Salzmann	Hospital for Special Surgery
The Macro- & Microscopic Biomechanical Responses Of The Cervical Facet Capsule Differ By Spinal Level & Are Altered By Collagen Degradation Simulating Joint Degeneration	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Beth Winkelstein	University of Pennsylvania

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Effect Of Body Lattice And Microporous Endplates On The Subsidence Of Interbody Fusion Cage Under Simulated In-vivo Testing Conditions	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Yun Peng	NuVasive
Lumbar Paraspinal Muscle Botulinum Toxin Type-A Injection Does Not Affect Distant Bone Mineral Density Of The Radius	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Alyssa Logan	Michigan State University
The Effect Of Prolonged Microgravity On Paraspinal Muscle Quality Across Different Spinal Muscles And Levels	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Gabriel Johnson	University of California, San Francisco
Normative Cervical Spine Kinematics Of A Multi-Axial Task In A Healthy Cohort	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Arin Ellingson	University of Minnesota
An Anatomic Study Exploring Differences In Pars Interarticularis Distance And Spinal Canal Width Between Lumbar Levels And Its Effect On Lumbar Decompression.	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Christina Cheng	University Hospitals Cleveland Medical Center
Development Of An Anatomically Representative Test Block Model For Clinically Relevant Evaluation Of Cage Subsidence Performance: The Role Of Cage Width And Placement	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Yun Peng	NuVasive

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Biomechanical Evaluation Of The Newly Developed Decompression Surgery: Transforaminal Full-endoscopic Lateral Recess Decompression (TE-LRD)	2/13/2021 6:00	Spine-Structure, Function and Mechanics	koji Matsumoto	Department of Orthopaedic Surgery Nihon University School of Medicine
In Vivo Deformation Patterns Of Craniocervical Ligaments During Dynamic Head Axial Rotation	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Chaochao Zhou	Massachusetts General Hospital
Effect Of Cage Position And Insertion Angle In Obique Lumbar Interbody Fusion	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Min Seok Kim	Inje University
Regional Variation Of Bone Mineral Density In Human Cervical Spine: A Pilot Study	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Francesco Travascio	University of Miami
Reliability Of A Full-body Topographic Scanner For Automated Analysis Of Spinal Deformity	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Howard Hillstrom	Hospital for Special Surgery
Dynamic Congruency Of The Sacroiliac Joint	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Arin Ellingson	University of Minnesota
Upper Cervical Spine Rotation After Occipital-atlas Stabilization: Rotation With Flexion And Ipsilateral Lateral Bending	2/13/2021 6:00	Spine-Structure, Function and Mechanics	Ana Lorente	University of Zaragoza
Hydrogel Nucleoplasty Improves Disc Height And Condition In A Goat Model Of Moderate-severity Disc Degeneration	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Alessandra Fusco	University of Pennsylvania School of Veterinary Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Bone Morphology Predicts The Specimen-Specific Change In Bone Strength Following Total Disc Arthroplasty	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Noah Bonnheim	University of California, Berkeley
Ketorolac Attenuates Pain & Reduces Spinal Glutamatergic Signaling Markers That Are Modulated With Painful Whole Body Vibration	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Beth Winkelstein	University of Pennsylvania
The Association Of Transversus Abdominis Plane Block With Length Of Stay And Opioid Consumption After Anterior Or Lateral Lumbar Fusion: A Retrospective Cohort Study.	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Marie-Jacqueline Reisener	Hospital For Special Surgery
Longitudinal Changes In Adjacent Segment Disc Deformation After Cervical Spine Arthrodesis	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Clarissa LeVasseur	University of Pittsburgh
Bone Ingrowth Performance Evaluation Of A Novel Additive Manufactured Porous Titanium Interbody Spinal Fusion Cage Using An Ovine Model	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Michel Assad	Charles River Laboratories
Effect Of Sulfasalazine And Blebbistatin On Reducing Myofibroblast Activities For Epidural Fibrosis Treatment	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Dongrim Seol	The University of Iowa

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Characterizing The Effect Of Cage Material And Novel Porosity Design On The Cage Subsidence Performance Under Clinically Relevant Dynamic Loading Conditions	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Yun Peng	NuVasive
Improved Outcomes And Reductions With A Novel Modified Triangular Osteosynthesis Technique Utilizing S1 Pedicle Screws For Spinopelvic Dissociation U- And H-type Sacral Fractures With Kyphotic Deformity	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Augustine Saiz	University of California, Davis
Novel Support Device Improves Pedicle Screw Retention	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Lucas Ray	University of Minnesota
Iatrogenic Factors Are Not Associated With Changes In Adjacent Segment Kinematics After Anterior Cervical Fusion	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Stephen Chen	University of Pittsburgh Medical Center
Mid-range Kinematics Are More Sensitive Than End-range Kinematics For Identifying Early Changes In Adjacent Motion After ACDF	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Clarissa LeVasseur	University of Pittsburgh
Rat Spinal Fusion: Techniques To Achieve Surgical Reproducibility	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Evalina Burger-Van Der Walt	University of Colorado Anschutz Medical Campus, Department of Orthopedics

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Exploring The Correction Achieved By A Modified Technique Of Anterior Vertebral Body Tethering (AVBT) In Early Onset Scoliosis: A Parametric Finite Element Study Simulating 21-month Growth.	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Vijay Goel	The University of Toledo
Correlations Between Cobb Angle And Center Of Pressure Trajectories During Gait In Adolescent Idiopathic Scoliosis	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Jonathan Horng	Medical College of Wisconsin
A New Orthosis Based On Final Edf Serial Casting Technique In Eos	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Aushja Syed	Medical College of Wisconsin
Biomechanics Of Anterior Vertebral Body Tethering (AVBT) In Early Onset Scoliosis: A Parametric Finite Element Study Simulating 24-month Growth.	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Vijay Goel	The University of Toledo
Rib Construct For Early-onset Spinal Deformity (EOSD)	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Daniel Bonthius	Medical University of South Carolina
Risk Factors For Incidence Of Postoperative Spinal Epidural Hematoma Following Multi-level Microendoscopic Laminectomy	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Hirofumi Bekki	Kyushu Central Hospital
Intra-joint Drilling Does Not Elevate Local Bone Temperature To A Clinically Relevant Level	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Lauren Eichaker	SEA, Ltd.

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Upper Cervical Corpectomy: Outcomes And Complications	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Amy Phan	University of Rochester
Investigation Of Standard Vs. Extended Pedicle Subtraction Osteotomy Via Radiographic Measures Of Spinal Alignment	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Paulos Mengsteab	Icahn School of Medicine at Mount Sinai
Efficacy Of Intraoperative Neuromonitoring In Predicting Postoperative Changes In Cervical Spine Surgery	2/13/2021 6:00	Spine-Surgical and Non-Surgical Interventions	Won Park	University of Rochester School of Medicine and Dentistry
Loss Of Fkbp10 In Tendons And Ligaments Causes Joint Deformities By Smo-dependent Ectopic Chondrogenesis	2/13/2021 6:00	Tendon and Ligament-Diseases and Disorders	Joohyun Lim	Baylor College of Medicine
The Effects Of High Glucose Levels And Medium Supplementation On Tendon Explant Homeostasis Are Tissue-Dependent	2/13/2021 6:00	Tendon and Ligament-Diseases and Disorders	Brianne Connizzo	Massachusetts Institute of Technology
Do Statins Aggravate Rotator Cuff Tendinopathy? An In Vivo Study In Rat Supraspinatus Tendon Overuse Model	2/13/2021 6:00	Tendon and Ligament-Diseases and Disorders	Kairui Zhang	Nanfang Hospital, Southern Medical University
The Differential Effects Of Osteoarthritis In The Human Anterior Cruciate Ligament-to-bone Interface On The Basis Of Sex	2/13/2021 6:00	Tendon and Ligament-Diseases and Disorders	Hannah Childs	Columbia University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Proteomic Analysis Of Sports-related Enthesopathy Onset Factors	2/13/2021 6:00	Tendon and Ligament-Diseases and Disorders	Kaichi Ozone	Saitama Prefectural University
The Role Of Tgfb In Gli1-expressing Cells At The Developing Enthesis	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Lee Song	Columbia University
Advanced Glycation End-products Are Limited To Specific Sites Of Type I Collagen In Aging Tendon	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	David Hudson	University of Washington
Scaffold-free 3D Tendon Cell Culture Using Mouse Tendon Cells	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Yeonju Lee	University of Pennsylvania
Can Mechanical Load Prevent Or Reduce Age-related Advanced Glycation End-product Accumulation In Tendons?	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Panth Doshi	Virginia Commonwealth University
Effects Of Vascular Endothelial Growth Factor Blocker On Tenogenic Differentiation Of Rat Tendon-derived Cells In Vitro	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Yohei Kusaba	Yokohama City University
Investigating Degeneration Of The Human Acl At The Tibial Insertion Site	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Hiroko Ueki	University of Pittsburgh
The Influence Of Mechanical Force On Embryonic And Postnatal Tendon Development	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Yuna Usami	Saitama Prefectural University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Dynamic Transcriptional Profile Of Gli1-lineage Enthesis Cells At Single-cell Resolution	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Fei Fang	Columbia University
Unilateral, Daily Bouts Of Muscle Loading Lead To Adaptation Of The Immature, But Not Mature, Achilles Enthesis In Mice	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Megan Killian	University of Michigan
Characterization Of Chick Embryo Craniofacial Tendon Development	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Stefanie Korntner	Fischell Department of Bioengineering, University of Maryland
Unraveling The Role Of AGEs At The Fibril, Fiber, And Fascicle Level Of Collagen Organization In Musculoskeletal Tissues	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Austin Gouldin	Virginia Commonwealth University
Lysyl Oxidase (lox) And Lox Pro-peptide Have Distinct Effects On Embryonic Tendon Cell Behaviors	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Phong Nguyen	University of Rochester
Young Rotator Cuff Exosomes Rejuvenate Aged Rotator Cuff Enthesis Cells	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	zeling long	Mayo clinic
Effect Of Glycation On Surface Charge And Indentation Stiffness Of Individual Collagen Fibrils	2/13/2021 6:00	Tendon and Ligament-Growth, Development and Aging	Manuel Rufin	Institute of Lightweight Design and Structural Biomechanics, TU Wien
Blunted Ccr2 And Macrophage Recruitment Impedes Functional Recovery During Tendon Healing	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Samantha Muscat	University of Rochester

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Activated Macrophage And Recruited CD146⁺ Tendon Stromal Cell Crosstalk Alternately Prevents And Accelerates Functional Loss Of Tendon Core Mechanics In A Hybrid Hydrogel Explant Model Of Tendon Injury	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Tino Stauber	ETH Zurich, Balgrist Campus
MRL/MpJ Exhibit Restored Function And Insertion Site Structure In Supraspinatus Tendon After Surgical Repair	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Monideepa Chatterjee	Cornell University
Acute And Chronic Increases In Gene Expression Involving Sulfated Proteoglycan Synthesis In Mouse Injured Achilles Tendons	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Soutarou Izumi	University of Maryland, Baltimore
Effects Of Mechanical Strain On Metabolic Responses Of Human Anterior Cruciate Ligament And Synovium	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Sebastian Cardona-Ramirez	University of Missouri Columbia
Extracellular Vesicles From Adipose-derived Stem Cells Improve Mouse Achilles Tendon Healing After Acute Injury And Repair	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Hua Shen	Washington University School of Medicine
Defining The Periostin Matricellular Niche For Myofibroblasts During Fibrotic Tendon Healing	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Jessica Ackerman	University of Rochester Medical Center

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Quantitative Proteomic Landscape Of Early Healing Biomarkers After Achilles Tendon Rupture	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Junyu Chen	Karolinska Institute
Comparison Of Basal And Cytokine Stimulated Metabolism Of Anterior Cruciate Ligament (ACL) And Synovium At The Time Of ACL Reconstruction	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Luke Baxter	University of Missouri Columbia
Debridement Prior To PRP Injection Is Necessary For Effective Treatment Of Degenerative Patellar Tendinopathy	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Roshawn Brown	University of Pittsburgh
Neonatal Tregs Are Necessary And Sufficient For Functional Tendon Regeneration	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Varun Arvind	Icahn School of Medicine
Neuroimmune Modulation By The Nicotinic Acetylcholine Receptor α7 In Rotator Cuff Disease	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Iden Kurtaliaj	Columbia University
TGF-β1 Activates MTORC1 Signaling In Mouse Flexor Tendon Fibroblasts	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Rahul Alenchery	University of Rochester
Investigating Obesity's Harmful Effects On Enthesis Healing In A Rat Rotator Cuff Tear Model	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Scott Bolam	University of Auckland

Presentation Title	Date & Time	Session Title	Primary Author	Institution
A Cadaveric Biomechanical Comparison Of Krackow Open Repair To Percutaneous Achilles Repair Systemfor Achilles Tendon Ruptures	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	David Komatsu	Stony Brook University
The Effect Of Recovery Period On Injury Patterns And Trends Among Athletes In The National Football League	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Akhil Sharma	Duke University Medical Center
Defining The Differential Function Of Tendon Intrinsic And Extrinsic S100a4+ Cells During Tendon Healing	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Kendra Jones	University of Rochester
Comparative Study Of Spontaneous Achilles Tendon Healing Between Open Tenotomy And Microscopic Percutaneous Tenotomy : An Experimental Study In Rat	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Jae Hwang Song	Konyang University Hospital
Comparison Of Basal And Cytokine Stimulated Metabolism Of Tendon Autografts Used For Anterior Cruciate Ligament Reconstruction	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Luke Baxter	University of Missouri Columbia
Collagen V Haploinsufficiency Results In Delayed Healing And Altered Wound Matrix Post-injury In Murine Tendons	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Jaclyn Carlson	University of Pennsylvania

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Spatiotemporal Changes In Degeneration And Regeneration In Supraspinatus Muscle Following Rotator Cuff Tear	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Molly Ogle	Georgia Institute of Technology
Local Tendon Injury Using Electrosurgery Compared With Sharp Transection: A Cadaveric Study	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Navya Dandu	Rush University Medical Center
Metabolic Responses Of ACL Explants To Estradiol And Pro-inflammatory Cytokine Stimulation	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Nicholas Choma	University of Missouri Columbia
Computational Exploration Of The Benefits Of Early Mobilization During Tendon Repair	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Thomas Notermans	Lund University
Poly-N-Acetyl Glucosamine (sNAG) Is Dose Dependent For Healing Of A Rat Rotator Cuff	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Courtney Nuss	University of Pennsylvania
Postoperative Changes In Signal Intensity Of The Anterior Cruciate Ligament Are Location Specific Implicating Variable Tissue Remodeling Across The Surgically Treated Ligament	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Ata Kiapour	Boston Children's Hospital
Chondrogenic Restriction Of Intrasynovial Flexor Tendon Fibrocartilage Zone-derived Cells:implications In Intrasynovial Tendon Healing	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Sushmitha Durgam	The Ohio State University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Metabolic Responses Of Patellar Tendon Grafts To Estradiol And Pro-inflammatory Cytokine Stimulation	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Nicholas Choma	University of Missouri Columbia
Muscle Architecture Is Still Affected Three Years After Achilles Tendon Rupture Whereas Function Is Nearly Restored	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Alison Agres	Charité-Universitätsmedizin Berlin
Effects Of Mechanical Strain On Metabolic Responses Of Human Anterior Cruciate Ligament Graft Fibroblasts	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Sebastian Cardona-Ramirez	University of Missouri Columbia
Macrophages Polarization Landscape Is Associated With Biomechanical Properties During Achilles Tendon Healing	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Sparrow Hongtao XU	Department of Orthopaedics & Traumatology, Faculty of Medicine, The Chinese University of Hong Kong
Impact Of Exercise Intensity On Tendon Healing In Rat Rotator Cuff Reconstruction Model	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Haruna Takahashi	Saitama Prefectural University
Mmp-regulation Is Dependent On The Presence Of Fibroblasts In A Ligament Model Of Sub-failure, Painful Stretch	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Beth Winkelstein	University of Pennsylvania
Tissue-on-chip (toc) Platform For Modeling Inflammation, Fibrosis And Cell-cycle Regulation In Fibrovascular Tendon Healing	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Rahul Alenchery	University of Rochester

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Development Of A New Technique To Characterize Scar Tissue Mechanical Properties During Tendon Healing	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	Antonion Korcari	University of Rochester
Achilles Tendon Recovery After Ciprofloxacin Induced Tendinopathy	2/13/2021 6:00	Tendon and Ligament-Injury and Healing	DAVID FALGOUT	University of Arizona
In Situ ACL Function Shifts Between Males And Females During Adolescence And Correlates With ACL Size	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Danielle Howe	North Carolina State University
Hyaluronic Acid Modulates Quasistatic But Not Viscoelastic Tensile Properties In Uninjured And Fatigued Tendons	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Patrick Muljadi	Cornell University
Regional Shear Wave Speed And Strain Vary In Patellar Tendons With Local Defects	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Stephanie Cone	University of Wisconsin
Collagen XII Regulates Tendon Dynamic Mechanical Properties And Collagen Fiber Realignment	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Ashley Fung	University of Pennsylvania
Stiffness Of The Ulnar Collateral Ligament Determined By Shear Wave Elastography Does Not Correlate To Mechanically Determined Stiffness	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Alan Reynolds	Allegheny Health Network

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Local Tissue Heterogeneity May Modulate Neuronal Responses Via Altered Axonal Strains	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Jill Middendorf	University of Minnesota
Position-Dependent Recruitment Of Collagen Fibers Determines Tendon Enthesis Toughness	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Mikhail Golman	Columbia University
Cross-sectional Area Comparisons Of Peroneus Longus Tendon, Hamstring Tendon, And Quadriceps Tendon Autografts: An Ex Vivo 3D Laser Scan Study	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Jinshen He	University of Pittsburgh
The Role Of Matrix Stiffness In Tendon Health And Disease	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Subhajit Konar	University of Auckland
A Numerical Homogenisation Approach For Uniaxial Stress State Of Tendon Fascicles - Extension To Porous Media	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Eduardo Fancello	Universidade Federal de Santa Catarina
Regional Shear Wave Speed Measurements In Non-uniformly Loaded Collateral Ligaments	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Jonathon Blank	University of Wisconsin-Madison
Avoiding Nerve Damage During Peroneus Longus Tendon Harvest: A Cadaveric Study	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Jinshen He	University of Pittsburgh
In Situ Characterization Of The Mechanical Properties Of Human Knee Ligaments	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Samira Vakili	Western University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The Piezo1 Ion Channel Regulates Collagen Production And Actin Cytoskeleton Structure Of Adipose Stem Cells	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Neda Rashidi	Washington University
In Situ, Ligament-mimicking Mechanical Phantoms For Optimizing Novel Intraoperative Sensors	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Lesley Arant	University of Wisconsin - Madison
Donor Age And Sex Have A Limited Effect On Mechanical And Microstructuralproperties Of Connective Tissues	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Ryan Castile	Washington University in St. Louis
Cross Sectional Area Changes Of The Native Anterior Cruciate Ligament Under Loading	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Ryo Kanto	Department of Orthopaedic Surgery, University of Pittsburgh
Elastase Treatment Differentially Affects Murine Achilles And Tibialis Anterior Tendon Mechanics	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Jeremy Eekhoff	Washington University in St. Louis
Ccn1 Expression Is Down-regulated By Loss Of Mechanical Stimuli In Achilles Tendon	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Jie Jiang	University of Maryland, Baltimore
Central Slip Reconstruction With A Distally Based Flexor Digitorum Superficialis Slip: A Biomechanical Study	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Nahir Habet	Atrium Health Musculoskeletal Institute

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Heterogeneous Mechanical Strain Inhibits Tissue Collagen Degradation By Collagenase	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Karanvir Saini	University of Pennsylvania
Nanomechanical Assessment Of Osteogenesis Imperfecta Collagen Fibrils In Indentation And Tension	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Mathis Nalbach	TU Wien
Histological Variations In Aged Human Tendons	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Samantha Hefferan	Murray Maxwell Biomechanics Laboratory, Institute of Bone and Joint Research, Kolling Institute, Royal North Shore Hospital
Effects Of Complete A4 Pulley Release On Bowstringing Of Fdp Tendons In A Cadaveric Model	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Michael Holmboe	Valley Orthopedic Surgery Residency
Multiscale Syntheses Of Knee Connective Tissues Stresses: From Molecular To Continuum Macroscale	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Malek Adouni	Rehabilitation Institute of Chicago/Northwestern University
Collagen Organization - But Not Glycation - Predicts Mechanical Behavior In Human Achilles Tendon	2/13/2021 6:00	Tendon and Ligament-Structure, Function and Mechanics	Jennifer Zellers	Washington University School of Medicine in St. Louis
Bone-patellar Tendon-bone Allografts: Effects Of Donor Age On Biomechanical Properties	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Connor Delman, MD	University of California, Davis, Department of Orthopaedics
Inhibition Of HMGB1 Impairs Healing Of Achilles Enthesis Injury In Mice	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Nia James	University of Pittsburgh

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Applying Rna Sequencing And Novel Bioinformatic Approaches To Predict Drug Targets For Tendon Regeneration	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Alice Huang	Icahn School of Medicine at Mount Sinai
Developmental Slow Stretch Of Engineered Ligaments Yields Accelerated Enthesis Organization And Mechanics	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Michael Brown	Virginia Commonwealth University
Pentamidine-gelation Scaffold To Improve Flexor Tendon Healing And Decrease Adhesion Formation	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Guidong Shi	Mayo Clinic
Effectiveness Of Dehydroepiandrosterone For High Glucose-induced Oxidative Stress On Rat Achilles Tendon	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Shintaro Mukohara	Kobe University Graduate School of Medicine
Platelet HMGB1 Promotes Tendon Wound Healing	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Jianying Zhang	University of Pittsburgh
Achilles Tendon Rupture: Effect Of Passive Ankle Dorsiflexion Stretching After Surgical Treatment In Mice	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Moe Yoneno	Saitama Prefectural University
Biomechanical Evaluation Of Achilles Tendon Midsubstance Repair: The Effects Of Anchor Angle And Position	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Jon Miles	Steadman Philippon Research Institute
Anti-inflammatory Effect Of 4-Methylumbelliferone (4-MU) In Human ACL-derived Cells	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Masaru Idota	Nagoya University Graduate School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Evaluation Of Quercetin In Vitro For High Glucose Induced Oxidative Stress On Tenocytes	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Tomoya Yoshikawa	Kobe University Graduate School of Medicine
Kangaroo Tendon Decellularisation And Sterilisation: Effects On Xenograft Strength	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Dylan Ashton	Faculty of Medicine and Health, University of Sydney
Development Of A High Throughput Platform For Evaluation Of Protein Based Therapeutics For Tendon Healing	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Marguerite Pacheco	Cornell University
Characterizing Cytotoxicity Of A Novel Tendon Lubricant For Clinical Use	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Jannet Rivera	Mayo Clinic
Hill-type Muscle Modeling Of Plantar Flexion In Murine Hindlimb	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Talia Baddour	Virginia Tech
Artificial Tendon Replacement Restores Biomechanical Function In The Rabbit Hindlimb	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Patrick Hall	University of Tennessee, Knoxville
Histopathological Analysis Of An Implant-Modified Tendon Transfer Surgery: A Collection Of Chicken Pilot Studies	2/13/2021 6:00	Tendon and Ligament-Treatment and Therapeutics	Lindsay Benage	Oregon State University
Comprehensive Transcriptome Analysis Of 5' Cap Sites In Osteosarcoma	2/13/2021 6:00	Tumors-Genetics	Kei Sano	Juntendo University School of Medicine

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Analysis Of Volumetric Bone Mineral Density Of Osteoblastic Metastatic Lesions In The Proximal Femur Of Patients With Prostate Cancer	2/13/2021 6:00	Tumors-Metastatic	Hajime Rikitake	National Defense Medical College
Identification Of Associated MicroRNAs In Bone Destruction By Breast Cancer Metastasis	2/13/2021 6:00	Tumors-Metastatic	Kazumichi Kitayama	Kobe University Graduate School of Medicine
A Comparative Analysis Of The Outcomes And Survivorship Of Proximal Femoral Replacement Versus Internal Fixation Techniques In The Treatment Of Metastatic Disease Of The Proximal Femur	2/13/2021 6:00	Tumors-Metastatic	Charles Gusho	Rush University Medical Center
Probing The Therapeutic Landscape Of Chondrosarcoma With Integrated Chemical Screening	2/13/2021 6:00	Tumors-Metastatic	Trudy Zou	Duke University
Proximal And Distal Changes In Bone Mineral Content And Mechanical Properties Occur Prior To The Development Of Overt Breast Cancer Metastasis	2/13/2021 6:00	Tumors-Metastatic	Anneke Verbruggen	National University of Ireland, Galway

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Development Of Machine Learning Algorithms For Detecting Bone Tumor Margins By Raman Spectroscopy	2/13/2021 6:00	Tumors-Primary Tumors	Carol Lau	The Chinese University of Hong Kong
Molecular Profiling Of Bone Remodeling Occurring In Musculoskeletal Tumors	2/13/2021 6:00	Tumors-Primary Tumors	Kosei Nakajima	National Cancer Center
Mesenchymal Stem Cells And Osteosarcoma Cells Crosstalk During Chemotherapy: Safe Regeneration After Tumor Resection	2/13/2021 6:00	Tumors-Primary Tumors	Ava Brozovich	Texas A&M College of Medicine, Houston Methodist Research Institute
The Effective Periods Of Denosumab In Giant Cell Tumor Of Bone: An Analysis In The Recurred Cases After Treatment	2/13/2021 6:00	Tumors-Primary Tumors	Yusuke Kawabata	Yokohama City University of Medicine
Identification Of Dormant Cells In Ewing Sarcoma	2/13/2021 6:00	Tumors-Primary Tumors	Shunsuke Yahiro	Department of Orthopaedic Surgery, Kobe University Graduate School of Medicine
Autocrine Motility Factor And Its Receptor Expression In Musculoskeletal Tumors	2/13/2021 6:00	Tumors-Primary Tumors	Kosei Nakajima	National Cancer Center
Does Anticoagulation Choice Following Soft Tissue Sarcoma Resection Impact Venous Thromboembolism Rates?	2/13/2021 6:00	Tumors-Primary Tumors	Jonathan Horng	Medical College of Wisconsin
Leukocyte-based Biomimetic Nanoparticles Loaded With Ponatinib As A Treatment For Osteosarcoma	2/13/2021 6:00	Tumors-Treatment and Therapeutics	Federica Giordano	Houston Methodist Research Institute

Presentation Title	Date & Time	Session Title	Primary Author	Institution
The Hdac Inhibitor Romidepsin Causes Regression Of Osteosarcoma Spheroids	2/13/2021 6:00	Tumors-Treatment and Therapeutics	Emily Seiden	IU School of Medicine
Clinical Results Of Desmoid-type Fibromatosis In Long-term Treatment With Tranilast	2/13/2021 6:00	Tumors-Treatment and Therapeutics	Masanobu Takeyama	Dept. of Orthopaedic Surg., Yokohama City University
Analysis Of Prosthetic Infection Control Rate In The Malignant Tumors	2/13/2021 6:00	Tumors-Treatment and Therapeutics	Tomoka Takagi	Yokohama City University
Risk Factor And Incidence Of Preoperative Venous Thromboembolism In Patients With Malignant Musculoskeletal Tumor	2/13/2021 6:00	Tumors-Treatment and Therapeutics	Kenta Hayashida	Yokohama City University
Eribulin Improves Tumor Hypoxia And Suppresses Hif1α Expression In Synovial Sarcoma	2/13/2021 6:00	Tumors-Treatment and Therapeutics	Eiko Taguchi	National Defense Medical College
Preliminary Safety Assessment Of Kyphoplasty With Brachytherapy Bone Cement In An Ovine Model	2/13/2021 6:00	Tumors-Treatment and Therapeutics	Joyce Keyak	University of California, Irvine
Comparison Of Ankle And Adjacent Joint Kinematics Between Normal Gait And Adaptive Gait With Total Ankle Arthroplasty	2/13/2021 6:00	NIRA-Biomaterials/Materials	Brett Steineman	Hospital for Special Surgery

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Heterodimer Bone Morphogenic Protein-2/7 (bmp-2/7) Delivered Via A Collagen-hydroxyapatite Scaffold Demonstrates Enhanced Progenitor Cell Homing And Osteoinductivity Over Homodimer Bmp-2	2/13/2021 6:00	NIRA-Biomaterials/Materials	Deepak Raina	Lund University
Biomanufactured Cell-Decorated Collagen Fiber Grafts Mimic Musculoskeletal Tissue Properties And Promote Functional Recovery	2/13/2021 6:00	NIRA-Biomaterials/Materials	Kyle Christensen	Embody Inc
Nickel-free High-nitrogen Austenitic Steel - A Replacement For Cocrmo-alloy To Battle Tribocorrosion In Healthy And Inflammatory Simulated Synovial Fluids?	2/13/2021 6:00	NIRA-Biomaterials/Materials	Simona Radice	Rush University Medical Center
Optimal Surgical Component Alignment Minimizes TKR Wear - An In Silico Study With Nine Alignment Parameters	2/13/2021 6:00	NIRA-Biomaterials/Materials	Steven Mell	Rush University
The Direct Effect Of Nanofiber Based Vitamin D Sheet Engineered With 3d Printing For Tendon To Bone Healing And Muscle Regeneration After Repair In A Chronic Rotator Cuff Tear Model Of Rabbit	2/13/2021 6:00	NIRA-Biomaterials/Materials	Sung-Min Rhee	Kyung Hee University Hospital

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Matrix Metalloproteinase (mmp)-degradable Tissue Engineered Periosteum Coordinates Allograft Healing Via Early Stage Recruitment And Support Of Host Neurovasculature	2/13/2021 6:00	NIRA-Biomaterials/Materials	Yiming Li	University of Rohcester
BMP-SMAD1/5 Signaling Is Required For Adequate Coupling Of Angiogenesis And Osteogenesis In Long Bones	2/13/2021 6:00	NIRA-Bone/Periosteum/Tendon	Annemarie Lang	Charité-Universitätsmedizin Berlin
Small Hairpin RNA-mediated Knockdown Of Kinesin Superfamily Member KIF26B Inhibits Heterotopic Ossification By Suppressing Cell Proliferation And Inducing Cellular Apoptosis	2/13/2021 6:00	NIRA-Bone/Periosteum/Tendon	Mingming Yan	Washington University School of Medicine
Cerebral Palsy Patients As A Model To Study The Effects Of Joint Loading On Capital Femoral Epiphysis Morphology Development	2/13/2021 6:00	NIRA-Bone/Periosteum/Tendon	Shayan Hosseinzadeh	Boston Children's Hospital
Neurovascular Coupling During The Genesis Of Trauma-induced Heterotopic Bone	2/13/2021 6:00	NIRA-Bone/Periosteum/Tendon	Qizhi Qin	John Hopkins University
Platelet-rich Fibrin Accelerates The Healing Of Achilles Tendon Defect By Promoting The Proliferation And Activation Of Tenocytes.	2/13/2021 6:00	NIRA-Bone/Periosteum/Tendon	Yoshiyuki Senga	Mie University

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Quantitative MRI Evaluation Of Lesion And Parent Bone In Patients With Juvenile Osteochondritis Dissecans (JOCD) Of The Knee - T2* Mapping And Volumetric Study At 3T	2/13/2021 6:00	NIRA-Bone/Periosteum/Tendon	Stefan Zbyn	University of Minnesota
Mscs And Il-4 Over-expressing Mscs Are Equally Effective In Mitigating Particle-associated Chronic Inflammation	2/13/2021 6:00	NIRA-Infection/Inflammation	Ning Zhang	Stanford University
Differences Between Acute And Chronic Periprosthetic Joint Infection In A Mouse Model; Transition From An Acute To Chronic Infection Start At An Early Time Period	2/13/2021 6:00	NIRA-Infection/Inflammation	Masashi Taguchi	University of Pittsburgh
Can CRP Predict The Need To Escalate Care After Initial Debridement For Musculoskeletal Infection?	2/13/2021 6:00	NIRA-Infection/Inflammation	Stephanie Moore-Lotridge	Vanderbilt University Medical Center
Therapeutic Assessment Of An Immunomodulator Based Approach To Control Periprosthetic Joint Infection	2/13/2021 6:00	NIRA-Infection/Inflammation	John Hamilton	Rush University Medical Center
Il-27 Suppresses Staphylococcal Abscess Formation In Staphylococcus Aureus Implant-associated Osteomyelitis	2/13/2021 6:00	NIRA-Infection/Inflammation	Yugo Morita	University of Rochester

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Drug Testing On A Microphysiological System Modeling Inflammatory And Degenerative Features Of Joint Diseases	2/13/2021 6:00	NIRA-Infection/Inflammation	Zhong Li	University of Pittsburgh
Disc-on-a-chip^{Mf}: An Integrated Microfluidic Platform For Long-term Culture Of Mouse Intervertebral Disc	2/13/2021 6:00	NIRA-Intervertebral Disc/Spine	Wanqing Xie	University of Virginia
Exercise Attenuates Low Back Pain And Alters Epigenetic Regulation In Intervertebral Discs In A Mouse Model.	2/13/2021 6:00	NIRA-Intervertebral Disc/Spine	Yuya Kawarai	McGill University
Chromatin Accessibility Maps Of Human Nucleus Pulposus Cells Identify Degeneration Grade-specific Epigenome Signatures And Gene Regulatory Networks	2/13/2021 6:00	NIRA-Intervertebral Disc/Spine	Steven Presciutti	Emory University
In Vivo CRISPR Receptor Modulation For Treating Disc Degeneration	2/13/2021 6:00	NIRA-Intervertebral Disc/Spine	Joshua Stover	University of Utah
Harmonization And Standardization Of Nucleus Pulposus Cell Culture Methods	2/13/2021 6:00	NIRA-Intervertebral Disc/Spine	Shaghayegh Basatvat	Sheffield Hallam University
Osteoarthritis Disrupts Interdigitation And Mechanical Function Of The Human Osteochondral Interface	2/13/2021 6:00	NIRA-Osteoarthritis/Arthritis	Christopher Mosher	Columbia University

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Elevated Levels Of Active Transforming Growth Factor β1 In The Subchondral Bone Relate Spatially To Impaired Bone Quality And Cartilage Loss In Human Knee Osteoarthritis	2/13/2021 6:00	NIRA-Osteoarthritis/Arthritis	Dzenita Muratovic	The University of Adelaide
Distal-less Homeobox 5 Is A Biomarker That Positively Correlates With Osteoarthritic Changes Of The Cartilage And Meniscus	2/13/2021 6:00	NIRA-Osteoarthritis/Arthritis	Neill Li	Brown University
The Wnt Agonist R-spondin 2 Promotes Joint Degeneration In Post-traumatic Osteoarthritis	2/13/2021 6:00	NIRA-Osteoarthritis/Arthritis	Alexander Knights	University of Michigan
Mitoprotective Therapy Reduces Inflammation And Prevents Cartilage Turnover In An In Vivo Model Of Posttraumatic Osteoarthritis	2/13/2021 6:00	NIRA-Osteoarthritis/Arthritis	Michelle Delco	Cornell University
Mild Exercise Alleviates Post-traumatic Osteoarthritis In Part By Expediting Lymphatic Joint Clearance	2/13/2021 6:00	NIRA-Osteoarthritis/Arthritis	Jarred Kaiser	Emory University
The Effect Of Anti-Gravity Treadmill Walking On Biomarkers Of Joint Disease, Pain And Kinematics In Individuals With Knee Osteoarthritis	2/13/2021 6:00	NIRA-Osteoarthritis/Arthritis	Prakash Jayabalan	Shirley Ryan AbilityLab

Presentation Title	Date & Time	Session Title	Primary Author	Institution
From A Skin Biopsy To Musculoskeletal Tissue Regeneration - A Single Protein Reprogramming Approach	2/13/2021 6:00	NIRA-Progenitor Cells/Regeneration/Repair	Li Chenshuang	University of Pennsylvania, School of Dental Medicine
Transient Expansion And Myofibroblast Conversion Of Marrow Adipogenic Lineage Precursors (malps) Mediate Bone Marrow Repair After Radiation	2/13/2021 6:00	NIRA-Progenitor Cells/Regeneration/Repair	Leilei Zhong	University of Pennsylvania
Pdgfrα⁺Periosteal Progenitors Are Critical For Periosteal Function	2/13/2021 6:00	NIRA-Progenitor Cells/Regeneration/Repair	Jiajia Xu	Johns Hopkins University
The Efficacy Of Preconditioned Or Genetically-modified IL4 Over-expressing Mesenchymal Stromal Cells For Augmentation Of Core Decompression In Steroid-associated Osteonecrosis Of The Femoral Head In Rabbits	2/13/2021 6:00	NIRA-Progenitor Cells/Regeneration/Repair	Masahiro Maruyama	Stanford University School of Medicine
Identification And Characterization Of A Genetic Marker For Epitenon Cells	2/13/2021 6:00	NIRA-Progenitor Cells/Regeneration/Repair	Anne Nichols	Center for Musculoskeletal Research, University of Rochester Medical Center
A Subset Of FAP Cells Expressing Gli1 Promote Muscle Regeneration With Less Fat Accumulation	2/13/2021 6:00	NIRA-Progenitor Cells/Regeneration/Repair	Lutian Yao	University of pennsylvania

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Finite Element Analysis of Stress Concentration on the Early Stage of Osteonecrosis of Femoral Head - Guest Nation South Korea	2/13/2021 6:00	ORS Best Posters	Keun Young Choi	Seoul St. Mary's Hospital
Mapping multiaxial mechanical properties in the proximal tibia and predicting properties from CT data - British Orthopaedic Research Society	2/13/2021 6:00	ORS Best Posters	Max Munford	Imperial College London
Biomimetic Hematoma Successfully Repairs Large Bone Defects with a Dramatically Reduced Dose of Recombinant Human BMP-2 - European Orthopaedic Research Society	2/13/2021 6:00	ORS Best Posters	Anna Woloszyk	University of Texas Health Science Center San Antonio
Regenerating Corticospinal Axons Innervate Phenotypically Appropriate Neurons within Neural Stem Cell Grafts - Japanese Orthopaedic Association	2/13/2021 6:00	ORS Best Posters	Hiromi Kumamaru	Kyushu University Beppu Hospital
Implantation of Bioactive Platelet-Rich Fibrin Scaffolds With Osteoconductive Bone Substitute Promote Regeneration of Rabbit Large Bone Defect - Taiwan Orthopedic Research Society	2/13/2021 6:00	ORS Best Posters	Chin-Chean Wong	TAIPEI MEDICAL UNIVERSITY SHUANG HO HOSPITAL

Presentation Title	Date & Time	Session Title	Primary Author	Institution
Selective Blockade of Discoidin Domain Receptor 1 Ameliorates Osteoarthritis in Knee Joint - Taiwan Orthopedic Research Society	2/13/2021 6:00	ORS Best Posters	Sung-Yen Lin	Kaohsiung Medical University
Articular Fracture in the Knee of T-cell-deficient Mice Results in More Severe Posttraumatic Arthritis - Orthopaedic Trauma Association	2/13/2021 6:00	ORS Best Posters	Michael Buchanan	Duke University