

## Podium Presentations

Presenting Author	Title
Jack Baumann, Undergraduate Student	Serum and Urine Biomarkers for Predicting Success or Failure after Osteochondral Allograft Transplantation Surgery
James L. Cook (Matt Smith), Faculty	Comparison of Biological Scaffolds for Augmentation of Partial Rotator Cuff Tears in a Preclinical Model
Spencer Delucia, Undergraduate Student	Defining Patient Phenotype Clusters Based on Chondrocyte Metabolic Profiles
Ishita Patel, Graduate Student	Utilizing Synovial Fluid, Serum and Urine Biomarkers to Predict Radiographic Osteoarthritis Severity

## Moderated Poster Podium Presentations

Presenting Author	Title
Jack Baumann, Undergraduate Student	Longitudinal Assessment of Serum and Urine Biomarkers in Patients Following Osteochondral Allograft Transplantation in the Knee
James L. Cook (Brett Crist), Faculty	Post-traumatic Osteoarthritis-related Biomarker Responses to Leukoreduced Platelet Rich Plasma Treatment after Pilon Fractures
Nikki Grecco, Undergraduate Student	Metabolic Responses of Normal, Injured, and Osteoarthritic Chondrocytes in Primary Cell Culture
Alex Lee, Undergraduate Student	Characterizing the Metabolic Profile of the Infrapatellar Fat Pad from Osteoarthritic Knees
Lasun Oladeji, Resident and PhD Student	Mitigating Pro-inflammatory Responses of Articular Cartilage with Hyperosmolar Saline

## Poster Presentations

Presenting Author	Title
Bree Baker, Postdoctoral Fellow	Joint Arthroplasty, Physical Function, and Fear of Falling: A Comparison of Older Adults
Jack Baumann, Undergraduate Student	Longitudinal Assessment of Serum and Urine Biomarkers in Patients Following Osteochondral Allograft Transplantation in the Knee
Chantelle Bozynski, Faculty	Serum and Urine Protein Biomarkers for Early Diagnosis of Hip Dysplasia

Presenting Author	Title
Sebastian Cardona Ramirez, PhD Student	Common ACL-Graft Fibroblast Gene Expression and Metabolic Responses to Mechanical Stress
Sebastian Cardona Ramirez, PhD Student	Sex Differences Among Intraarticular Knee Fibroblastic Responses to Cyclic Strain
Sebastian Cardona Ramirez, PhD Student	Fibroblastic Responses from Common ACL Grafts Are Affected by Sex and Mechanical Strain
Sebastian Cardona Ramirez, PhD Student	Synoviocytes Modulates the Mechanical Response of Fibroblasts from Common ACL Grafts
Nick Choma, Undergraduate Student	Comparison of ACL, PCL, and MCL Responses to Cytokine Stimulation
Spencer Delucia, Undergraduate Student	Effects of Passage Number and Culture Split Ratio on Chondrocyte Metabolic Responses
Liz Fletcher, Undergraduate Student	Evaluation of Intervertebral Disc Metabolic Responses to Injury and Sustained RANTES Stimulation Using a Rat-tail Whole Organ Explant Model
Matt Gao, Undergraduate Student	Correlations Among Metabolic Responses of Articular Cartilage and the Underlying Subchondral Bone from Osteoarthritic Knees
Matt Gao, Undergraduate Student	Correlations Among Histomorphometric Properties and Metabolic Responses of Bone Obtained from Patients with Knee Osteoarthritis
Matt Goa, Undergraduate Student	Correlations Among Pro-inflammatory, Degradation-Related, and Bone Metabolism Biomarkers Released by Bone Obtained from Patients with Knee Osteoarthritis
Nikki Grecco, Undergraduate Student	Effects of Osteochondral Allograft Storage Time on Chondrocyte Metabolism
Nikki Grecco, Undergraduate Student	Metabolic Responses of Normal, Injured, and Osteoarthritic Chondrocytes in Primary Cell Culture
Trent Guess, Faculty	Use of a Computational Knee Model Producing Failure Strain in the ACL to Elucidate Mechanisms for Non-contact ACL Rupture
Jake Kramer, PhD Student	Characterizing Biomarker Profiles in Spondylolisthesis Patients with Degenerative Lumbar Intervertebral Discs
Jake Kramer, PhD Student	Characterizing Biomarker Profiles for Degenerative Cervical and Lumbar Intervertebral Discs
Jake Kramer, PhD Student	Characterization of Biomarker Profiles for Patients Undergoing Lumbar Discectomy vs Fusion
Jake Kramer, PhD Student	Characterizing Biomarker Profiles for Degenerative Intervertebral Discs Stimulated with IL-1 $\beta$
Keiichi Kuroki, Faculty	Histopathologic Characterization of Synovial Biopsies from Clinical Canine Patients with Cranial Cruciate Ligament Disease

Presenting Author	Title
James L. Cook, Faculty	Comparison of Meniscal Allograft Transplantation Techniques Using a Preclinical Canine Model
Naomi Lee, PhD Student	Development of a Translational Canine Model of Human Intervertebral Disc Degeneration
Naomi Lee, PhD Student	Comparison of Biomarker Production by Nucleus Pulposus from Non-Chondrodystrophic and Chondrodystrophic Canine Intervertebral Discs
Naomi Lee, PhD Student	Characterizing the Basal and Pro-inflammatory Cytokine-induced Metabolic Responses of Annulus Fibrosus and Nucleus Pulposus
Naomi Lee, PhD Student	Comparison of Biomarker Production by Annulus Fibrosus from Non-chondrodystrophic and Chondrodystrophic Canine Intervertebral Discs
Alex Lee, Undergraduate Student	Characterizing the Metabolic Profile of the Infrapatellar Fat Pad from Osteoarthritic Knees
Emma LePage, Masters Student	Effects of Cyclic Compression Magnitude on Pro-inflammatory and Degradative Responses by Whole Organ Intervertebral Discs
Emma LePage, Masters Student	Effects of Compressive Load Frequency on Pro-inflammatory and Degradative Responses by Whole Organ Intervertebral Discs
Emma LePage, Masters Student	Effects of Cyclic Compression on Intervertebral Disc Metabolism in a Whole Organ Rat Tail Model
Emma LePage, Masters Student	Characterizing Intervertebral Disc Responses to Sustained Pro-inflammatory Cytokine Stimulation
Elizabeth Messenger, Undergraduate Student	Characterizing Meniscal Metabolic Responses Based on Severity of Meniscal Pathology in the Osteoarthritic Knee
Hayley Ockerhausen, Undergraduate Student	Correlation Between Underlying Bone Biomechanical Properties and the Tissue's Ex Vivo Metabolism and Histological Properties
Hayley Ockerhausen, Undergraduate Student	Correlation of Subchondral Bone Biomechanical Properties to Metabolic Responses, Histological Grade, and Biomechanical Properties of Articular Cartilage from Osteoarthritic Knees
Lasun Oladeji, Resident and PhD Student	Mitigating Pro-inflammatory Responses of Articular Cartilage with a Novel Hyperosmolar Saline Solution
Lasun Oladeji, Resident and PhD Student	Mitigating Pro-inflammatory Responses of Meniscus with Hyperosmolar Saline
Type Ortega, Undergraduate Student	Correlations Among Metabolic Responses and Histologic Characteristics of Articular Cartilage Obtained from Osteoarthritic Knees
Type Ortega, Undergraduate Student	Correlations Among Pro-inflammatory and Degradation-Related Biomarkers Released by Articular Cartilage from Osteoarthritic Knees
Type Ortega, Undergraduate Student	Characterizing Correlations Among Metabolic Responses of Articular Cartilage and Subchondral Bone from Osteoarthritic Knees

Presenting Author	Title
Ishita Patel, Masters Student	Utilizing Synovial Fluid Biomarkers to Distinguish Radiographic Osteoarthritis Severity
Ishita Patel, Masters Student	Correlation of Synovial Fluid, Serum, and Urine Biomarker Concentrations from Patients with Knee Osteoarthritis
Muhammad Salim, Undergraduate Student	Correlations Among Biomechanical Properties, Metabolic, and Histological Characteristics of Articular Cartilage from Osteoarthritic Knees
Muhammad Salim, Undergraduate Student	Correlations Among Articular Cartilage Biomechanical Properties and Metabolic, Biomechanical and Histomorphometric Characteristics of Bone from Osteoarthritic Knees
Aaron Stoker, Faculty	Serum and Urine Biomarkers can Distinguish Extent of Articular Cartilage Pathology in Patients Undergoing Osteochondral Allograft Transplantation Surgery
Jack Sudekum, Undergraduate Student	Comparison of Methods for Whole Elbow Osteochondral Allograft Preservation
Jack Sudekum, Undergraduate Student	Comparison of Methods for Whole Ankle Osteochondral Allograft Preservation
Luke Troyer, Undergraduate Student	Comparison of Relevant Metabolic Profiles for Male vs Female Anterior Cruciate Ligament, Synovium, Quadriceps Tendon and Patellar Tendon Explants
Luke Troyer, Undergraduate Student	Effects of Patient Age on Metabolic Profiles of Anterior Cruciate Ligament, Synovium, Quadriceps Tendon and Patellar Tendon Explants at the Time of ACL Reconstruction
Luke Troyer, Undergraduate Student	Effects of Time from ACL Injury to Reconstruction on Metabolic Responses of Anterior Cruciate Ligament and Synovium
Preston Wolfe, PhD Student	Longitudinal Assessment of Serum, Urine, and Synovial Fluid Biomarkers Following Bone-patellar Tendon-bone Anterior Cruciate Ligament Autograft Reconstruction Using a Canine Model
Preston Wolfe, PhD Student	Use of Polymerase Chain Reaction (PCR) to Characterize Bacterial DNA Profiles for Patients Undergoing Total Shoulder Arthroplasty