

2021 TARC Research Day Abstract Presentations

Session 1: Osteoarthritis

Abstract Title	Presentation Type	Presenter Name
Highlighting age-related differences in the mechanical response of human cartilage utilizing a novel magnetically actuated system for dynamic compressive loading	Highlighted Abstract	Matt Rich, BS
Oxidative stress regulation of NRF2 in human articular chondrocytes	Fast Abstract	Earnest Taylor, PhD
Imaging macrophages during post-traumatic osteoarthritis with NIRF labeled nanoemulsions	Fast Abstract	Huseyin Ozkan
Nutritional Education Needs in Adults with Osteoarthritis and Obesity	Fast Abstract	Katie Huffman, MA
Association of Microbial Composition with a Leaky Gut in Obesity-related OA	Fast Abstract	Liubov Arbeeveva, MS
Temporospatial Production of Reactive Oxygen Species in Articular Chondrocytes is Induced by the Endocytosis of Fibronectin Fragments, Alpha 5 Beta 1 Integrin and NADPH Oxidase 2	Fast Abstract	Michael Miao, PhD
DNA Damage Accumulation With Aging And Osteoarthritis In Primary Human Chondrocytes	Fast Abstract	Michaela Copp, BS

Session 2: Osteoarthritis

Abstract Title	Presentation Type	Presenter Name
ACL Injury Impacts Long-Term Knee Function and Tissue Remodeling in a Skeletally Immature Porcine Model	Highlighted Abstract	Danielle Howe, BS
Inter-relationships Between Multiple Joint Osteoarthritis and Collagen Biomarkers in Men: The Johnston County Osteoarthritis Project	Fast Abstract	Amanda Nelson, MD, MSCR, RhMSUS
Diabetes and BMI Modify the Association Between Painful Hip OA and All-Cause Mortality	Fast Abstract	Becki Cleveland, PhD
Time Course of Inflammatory Biomarker MCP-1 and Cartilage T2* after ACL Injury in a Juvenile Porcine Model	Fast Abstract	Danielle Howe, BS
Translating OA GWAS loci into novel OA risk genes with QTL analysis	Fast Abstract	Nicole Kramer, BS
High-throughput small molecule screening using normal human chondrocytes for OA drug discovery	Fast Abstract	Philip Coryell, PhD
Application of a Modified Recursive Feature Elimination Machine Learning Algorithm to Select Predictors of Mortality in those With and Without Osteoarthritis	Fast Abstract	Siyeon Kim

Session 3: Rheumatology, Allergy and Immunology

Abstract Title	Presentation Type	Presenter Name
Racial Disparities in Physical Therapy Utilization among Insured Older Adults with Rheumatoid Arthritis	Highlighted Abstract	Chris Lane, DPT

Developing a Toolkit for Outpatient Penicillin Allergy Assessments to Change Patient Outcomes	Fast Abstract	Andrew Winslow, MD
ACT for Lupus: pilot study of a novel web-based Acceptance and Commitment Therapy program for patients with lupus	Fast Abstract	Emily McCormick, MPH
Implementing Outpatient Penicillin Allergy Assessments by Non-Allergy Providers	Fast Abstract	Mildred Kwan, MD, PhD
Simultaneous measurement of surface proteins and single cell mRNA expression profiling of circulating immune cells in alpha-gal syndrome	Fast Abstract	Scott Commins, MD, PhD
Teratogenic Medication Use Associated with Favorable Odds of Contraception Counseling in a Cohort of Women with Systemic Lupus Erythematosus at a Large Tertiary Academic Medical Center	Fast Abstract	Shruti Chandramouli, MD
Perceived Impact of the COVID-19 Pandemic on Physical Activity Among Adult Patients with Rheumatologic Disease	Fast Abstract	Teresa Dickson

Session 4: Rheumatology, Allergy and Immunology & Osteoarthritis

Abstract Title	Presentation Type	Presenter Name
Intestinal Barrier Dysfunction Accompanies Peanut Allergy In A Genetically-Susceptible Mouse Model And Identifies Angiopoietin-like 4 As A Biomarker	Highlighted Abstract	Erin Steinbach, MD, PhD
T1ρ MRI as a Predictor of Symptoms Related to Posttraumatic Osteoarthritis	Fast Abstract	Daniel O'Connell
3D Chromatin Structure Identifies SOCS2 as a Putative Osteoarthritis Risk Gene	Fast Abstract	Eliza Thulson, BS
Osteoarthritis: Changes in Pain Sensitivity and Pain Reactivity	Fast Abstract	Jeannette Delva-Wiley, PhD
ENA-78/CXCL5 is Produced by OA Synovial Fibroblasts Treated with Fibronectin Fragments and Found in Synovial Fluid Taken from Patients After ACL Injury	Fast Abstract	Ralph Alberto
YAP/TAZ Nuclear Translocation in Response to OA Related Stimuli Promotes Anabolic Activity in Human Articular Chondrocytes	Fast Abstract	Yang Cui