With support from the Department of Orthopaedic Surgery, the Thompson family, the Gaines Endowment, and the Mizzou BioJoint® Center, the latest technology for translational biomechanical testing was installed in the TLRO’s Carson Biomechanics and Bioengineering Lab. Dr. Robb Colbrunn from SimVitro helped install the system and trained the team.

The SimVitro BioRobotics Testing System is an innovative tool that can perform a wide-range of biomechanical testing that correspond to real life movements, activities, and loads, including work, sport, and rehabilitation. This novel system adds to our unique capabilities as a translational orthopaedic laboratory performing comprehensive musculoskeletal research in an orthopaedic hospital dedicated to ‘Discovering Better’ for our patients.

Current Projects

- Immunology of Osteochondral Allograft Bone
- DoD BioJoint Knee and Ankle Clinical Trials
- DoD Meniscal Allograft Comparison Study
- Iron Chelators for OCA Bone Integration
- RIA vs BMAC for Bone Healing
- Canine & Human Hip Dysplasia Biomarkers
- Sex Differences in ACL Graft Healing
- Mizzou Knee Arthrometer Testing System
- Bone Quality after Bariatric Surgery
- Biomarkers for IVD Disease
- Updating Skeletal Maturity Methods
- BioJoint® Flex Knee Rehab System

Last Quarter’s “Top 5”

1. TLRO Team had 60 abstracts accepted for presentation at 2020 ORS Annual Meeting
2. Mindie Roush, Sr. Research Technician, retired from military service after 21 years
3. Kylee Rucinski earned her Master of Health Administration degree from Mizzou
4. Dr. Simon Tang, leading Spine Researcher from Washington University, visited TLRO
5. Dr. Ryan Knigge received American Association for Anatomy Fellowship Award

Recent Pubs

9. Cook JL. Bone marrow aspirate biologics for OCA – because we can or because we should? Arthroscopy 2019