



# Thompson Laboratory for Regenerative Orthopaedics

“Discovering Better”

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<http://thompsonlab.missouri.edu>

## Current Projects

- Mizzou BioJoint® Outcomes & Cost-Efficacy
- BioJoint® ACL Reconstruction
- BMA vs BMC for OCA Bone Integration
- Mizzou Total Elbow Arthroplasty System
- Mizzou Knee Arthrometer Testing System
- Patient-specific BioJoint® Instrumentation
- Motion Analysis for Risk of Injury
- BioJoint® Flex Knee Rehab System
- Novel Scope Irrigation Solution
- Enhanced BMC for Bone Healing
- Biomarkers for IVD Disease
- Intervertebral Disc Transplants

## Last quarter’s “top 5”

1. TLRO Team awarded \$1.9MM US Dept of Defense grant for Mizzou BioJoint® optimization
2. Mel Boeyer awarded NIH F31 training grant under the mentorship of Dr. Dana Duren
3. TLRO collaborates with Dr. Ateshian in NYC for \$1.5MM US Dept of Defense grant award
4. TLRO Team presents 34 studies at 2018 AAOS and ORS Meetings in New Orleans
5. 18<sup>th</sup> Annual Comparative Orthopaedics Day with Littlejohn Lecturer, Dr. Steve Messier

## 18<sup>th</sup> Annual Comparative Orthopaedics Day at the Missouri Orthopaedic Institute

This annual day of learning, collaboration, and interaction was an outstanding success again this year. **Dr. Steve Messier** from Wake Forest University gave a wonderful keynote lecture and the research presentations from Thompson Lab faculty, residents, and students were well received from the international audience. Our most sincere THANKS goes to **The Littlejohn Family** for making this special day a world class event every year!



(left) **Dr. Steve Messier** presenting his keynote lecture entitled, *Exercise and Diet to Treat Knee Osteoarthritis*

(right) **Dr. Steve Messier** with **Dr. Bob & Mrs. Marilyn Littlejohn** at the 2018 Comparative Orthopaedics Day event.

### Recent Pubs

1. Stoker AM, et al. Chondrocyte viability at time of transplantation for OCAs preserved by MOPS vs standard protocol. *J Knee Surg* 2018
2. Nuelle CN, et al. In vivo toxicity of local anesthetics and corticosteroids on tenocyte viability and metabolism. *Iowa Orthop J* 2018
3. James CR, et al. The use of fluoroscopy during direct anterior hip arthroplasty: powerful or misleading? *J Arthroplasty* 2018
4. Roller BL, et al. Use of a novel bone cement for augmenting anchor and tendon fixation. *Am J Orthop* 2018
5. Baumann CA, et al. Comparison of techniques for pre-implantation treatment of OCA bone. *J Knee Surg* 2018
6. Cook AE, et al. Metabolic responses of meniscus to IL-1b. *J Knee Surg* 2018
7. Stoker AM, et al. Validation of MOPS for maintenance of OCA quality during prolonged storage. *Am J Sports Med* 2017
8. Kuroki K, et al. Biologic joint repair strategies: The Mizzou BioJoint Story. *Tox Pathol* 2017
9. Oladeji LO, et al. Effect of autogenous BMC on radiographic integration of femoral condyle OCAs. *Am J Sports Med* 2017
10. Smith MJ, et al. Rotator cuff healing using demineralized cancellous bone matrix sponge in a preclinical model. *J Orthop Res* 2017
11. Capito NM, et al. Safety and efficacy of hyperosmolar irrigation solution in shoulder arthroscopy. *J Shoulder Elbow Surg* 2017