



Fall Quarter 6:4;2012

*e-news*



# Comparative Orthopaedic Lab

**"Finding a joint solution"**

www.columc.missouri.edu

## Current Projects

- Osteochondral Allografting in the Hip
- Fresh Meniscus-OCA Grafts
- Optimizing Allograft Tissue Preservation
- Biomarkers for Osteoarthritis
- Relationship of Vascular Disease with OA
- Stemless Shoulder Arthroplasty
- Femoral-Acetabular Impingement Model
- Models for Disc Degeneration
- In vitro* Model of Traumatic Arthritis
- Safety Testing for Joint Injections
- Multi-Body Modeling of OA
- Biologic Total Joint Arthroplasty

## Last quarter's "top 5"

1. COL-MOI Team had 5 abstracts accepted for 2013 AAOS Meeting!
2. COL-MOI Team submitted 14 ORS abstracts for presentation!
3. Dr. Aaron Stoker and co-authors published their work on our new osteochondral allograft preservation system in *The Journal of Knee Surgery*!
4. Dr. Sam Franklin successfully completed his PhD degree in the COL!
5. Collaborative work with Dr. Clark Hung's Laboratory on Biologic Joint Replacement published in *The Journal of Knee Surgery*!

## Comparative Orthopaedic Laboratory's work on Arthritis Biomarkers makes worldwide news

*US News & World Report* published an article in their *HealthDay* feature about the exciting work in the COL aimed at developing biomarkers for early diagnosis, staging, and treatment monitoring for arthritis. You can read this article about our revolutionary work at <http://health.usnews.com/health-news/news/articles/2012/05/18/research-with-dogs-points-to-early-test-for-arthritis>



### Recent Pubs

1. O'Connell GD, et al. Toward engineering a biologic al joint replacement. *J Knee Surg* 2012
2. Stoker AM, et al. Improved preservation of fresh osteochondral allografts for clinical use. *J Knee Surg* 2012
3. Stylianou AP, et al. Development and validation of a multi-body model of the canine stifle joint. *Comp Meth Biomech, Biomed Eng* 2012
4. Smith MJ, et al. Novel bone-tendon allograft for repair of chronic large rotator cuff tears using a canine model. *Arthroscopy* 2012
5. Franklin SP, et al. Relationship of the canine femoral head to the femoral neck: An anatomic study. *Vet Surg* 2012
6. Delaney LE, Esquivel AA, Kuroki K, Laughlin MH. Exercise training improves vasoreactivity in the knee artery. *Int J Sports Med* 2011
7. Garner BC, et al. Using animal models in osteoarthritis biomarker research. *J Knee Surg* 2011
8. Fox DB, et al. Cell-based meniscal engineering: A case for synoviocytes. *Clin Orthop Rel Res* 2011
9. Hung CT, Cook JL. Clinical relevant strategies for treating cartilage and meniscal pathology. *Clin Orthop Rel Res* 2011
10. Kuroki K, et al. Subchondral bone changes in three different canine models of osteoarthritis. *OC & Cartilage* 2011