



Winter Quarter 7:1;2013

*e-news*



# Comparative Orthopaedic Lab

**"Finding a joint solution"**

[www.columc.missouri.edu](http://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
- Bone Dowels for Pedicle Screw Failures
- Optimizing ACL reconstruction
- Models for Disc Degeneration
- *In vitro* Model of Traumatic Arthritis
- Safety Testing for Joint Injections
- Novel Osteotomy for Canine CCLD
- Biologic Total Joint Arthroplasty

## Last quarter's "top 5"

1. Dr. Jayabalan and COL team win 2013 American Association of Physiatrists Best Resident Paper Award for their research on OA Biomarkers!
2. COL Team has four new grants funded for a total of more than \$1 million!
3. COL Team has five manuscripts published in elite peer-reviewed journals!
4. Dr. Cook is featured guest on national radio show, *Pet Talk with Dr. B!*
5. Dr. Cook is selected as the 2013 recipient of WSAVA Hill's Pet Mobility Award!

## Comparative Orthopaedic Laboratory's research selected for 3 podium presentations at ORS

Dr. Aaron Stoker, Dr. Ferris Pfeiffer and Dr. Jimi Cook will present the results from their research at the Orthopaedic Research Society's Annual Meeting in San Antonio, Texas, January 26-29, 2013. The titles of their presentations are:

- *Analysis of Reamer Irrigator Aspirator System Aspirate Protein Content* -Stoker
- *Mitigating Mechanical Damage to Osteochondral Allografts during Implantation* -Pfeiffer
- *Clinical and Experimental Models of Cartilage Repair* - Cook



### Recent Pubs

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