



e-news

# Comparative Orthopaedic Lab

*"Finding a joint solution"*

www.columc.missouri.edu

## Current Projects

- Novel Biomarkers for Osteoarthritis
- Nanotechnology in Tissue Engineering
- Optimizing Allograft Tissue Preservation
- Limb Alignment Diagnosis & Treatment
- PPAR $\gamma$ -agonists in OA
- Pedicle Screw Fixation in Osteoporosis
- Multiscale Modeling of Unicompartamental OA
- *In vitro* Model of Traumatic Arthritis
- Characterization of Meniscal Pathology
- Nutritional Management of OA
- Bioscaffolds for Osteochondral Grafts
- Biologic Total Joint Arthroplasty

## Last quarter's "top 5"

1. COL presents 12 abstracts at ORS, 4 at VOS, 6 at Phi Zeta, & 3 at Life Sciences!
2. COL Team wins 6 awards for presented research!
3. Dr. Fox and team receive grant for Nanotechnology in Tissue Engineering!
4. COL receives grant with Dr. Guess' team at UMKC for Multiscale OA Modeling!
5. COL receives NIH grant with Dr. Hung's team at Columbia University in NYC!

## The 9<sup>th</sup> Annual Comparative Orthopaedics Day

We had record attendance for this wonderful event. Our keynote speaker, **Dr. Hollis Potter** from the Hospital for Special Surgery in NYC delivered an outstanding presentation of her amazing work in musculoskeletal imaging. We want to give **very special thanks to the Littlejohn Family** who established an endowment for CO Day that will support the lectureship and ensure that we can continue this great event in the future! Special thanks also to the Depts. of Orthopaedic Surgery and Veterinary Medicine & Surgery, as well as our sponsors – The Dana & Sonny Bal Orthopaedic Endowment, Schwartz Biomedical, Arthrex, and Smith+Nephew! And, congratulations to our 2009 COL *Making a Difference Award* winner – **Mary Cockrell**



## Recent Pubs

1. Anz AG, et al. The effect of bupivacaine and morphine in a co-culture model of diarthrodial joints. *Arthroscopy Rel Res* 2009
2. Cook JL, Cook CR. Bilateral shoulder and elbow arthroscopy in dogs with forelimb lameness. *Vet Surg* 2009
3. Cook CR, et al. Diagnostic imaging of canine elbow dysplasia: A review. *Vet Surg* 2009
4. Fox DB, et al. *In vitro* model to assess mechanisms and efficacy of a conduit for treatment of avascular meniscal injuries. *Cell Dev Biol* 2008
5. Venable RO, et al. Examination of synovial fluid hyaluronan as a biomarker for osteoarthritis in the stifle of dogs. *Am J Vet Res* 2008
6. Jayabalan P, Bal BS. Review of biomaterials in total knee arthroplasty. *Minerva Orthop Traumatol* 2008
7. Lima EG, et al. The effect of devitalized trabecular bone on the formation of osteochondral tissue-engineered constructs. *Biomaterials* 2008.
8. Lima EG, et al. Physiologic deformational loading does not counteract the catabolic effects of IL-1. *J Biomech* 2008