



Comparative Orthopaedic Lab

"Finding a joint solution"

www.columc.missouri.edu

Current Projects

- Stemless Shoulder Arthroplasty
- Fresh Meniscus-OCA Grafts
- Optimizing Allograft Tissue Preservation
- Biomarkers for Osteoarthritis
- Relationship of Vascular Disease with OA
- Pedicle Screw Fixation in Osteoporosis
- Femoral-Acetabular Impingement Model
- Models for Disc Degeneration
- In vitro* Model of Traumatic Arthritis
- On-field Diagnosis of Meniscal Pathology
- Multi-Body Modeling of OA
- Biologic Total Joint Arthroplasty

Last quarter's "top 5"

1. Joey Garrity receives Bone & Mineral Research Society Young Investigator Award!
2. Dr. Aaron Stoker promotion to Associate Research Professor approved!
3. James T. Stannard & spine research team have multiple abstracts accepted!
4. COL Arthritis Biomarkers research makes international news!
5. Dr. Cook is guest on *Healthy U Radio Show* – KMEM 100.5 FM hosted by Randy Tobler

Carson Biomechanics & Bioengineering Lab officially recognized at Mizzou!

The **Bill and Toni Carson Biomechanics and Bioengineering Lab** was officially "christened" as part of Mizzou's Comparative Orthopaedic Laboratory during the CO Day Event in April. Dr. & Mrs. Carson have played numerous integral roles in the success of the COL and our team over the years and we could not be prouder than to have the Carson name officially associated with the COL!



Pictured left to right:
Toni Carson, Jimi Cook, Neil Olson, & Bill Carson

12th Comparative Orthopaedics Day

Dr. **Andy Schmidt** delivered an excellent keynote address entitled, "**Compartment Syndrome – New Ideas about an Old Problem**" for our 12th Annual Comparative Orthopaedics Day. The presentations of original research from the COL Team were equally outstanding. We sincerely thank **The Littlejohn Family Endowment** for sponsorship of this annual world-class event! It is one of the highlights of the year for us here at Mizzou!



COL's Making a Difference Award

Gary Hume was the recipient of the COL's Making a Difference Award this year. Gary has contributed so much to the COL as our Senior Grants Specialist and a member of the COL Family!

Recent Pubs

1. Stylianou AP, et al. Development and validation of a multi-body model of the canine stifle joint. *Comp Meth Biomech, Biomed Eng* 2012
2. Smith MJ, et al. Novel bone-tendon allograft for repair of chronic large rotator cuff tears using a canine model. *Arthroscopy* 2012
3. Franklin SP, et al. Relationship of the canine femoral head to the femoral neck: An anatomic study. *Vet Surg* 2012
4. Delaney LE, Esquivel AA, Kuroki K, Laughlin MH. Exercise training improves vasoreactivity in the knee artery. *Int J Sports Med* 2011
5. Garner BC, et al. Using animal models in osteoarthritis biomarker research. *J Knee Surg* 2011
6. Fox DB, et al. Cell-based meniscal engineering: A case for synoviocytes. *Clin Orthop Rel Res* 2011
7. Hung CT, Cook JL. Clinical relevant strategies for treating cartilage and meniscal pathology. *Clin Orthop Rel Res* 2011
8. Kuroki K, et al. Subchondral bone changes in three different canine models of osteoarthritis. *OC & Cartilage* 2011
9. Warnock JJ, Fox DB, et al. Evaluation of in vitro growth factor treatments on fibrochondrogenesis by synovial membrane cells. *AJVR* 2011
10. Franklin SF, Cook JL. What is the evidence? Total hip replacement vs femoral head and neck excision. *JAVMA* 2011