Investigator:	**Thanh Doan** Phone: (404) 664-7849 ext. 3248 Email: thanh.doan@emory.edu
Primary Research Interest:	Physiology
Description of Research:	My laboratory uses in vitro and in vivo models to investigate bone and cartilage diseases and their trauma. For bone, we have developed in vitro bone-like models using osteocytes, mesenchymal stromal cells and other bone-lineage cells to determine the therapeutic potential of small molecules (e.g. growth factors, peptide and synthetic chemical compounds) and have further validated their bone inductive properties in vivo by using rat and rabbit bone models. For cartilage, we have established the use of the rat medial meniscus transection (MMT) model to induce post-traumatic osteoarthritis. We employ this in vivo rat model to determine the effects of osteoarthritis on whole joint physiology, including joint clearance, synovial fluid composition, changes to cartilage and subchondral bone structures ---- degeneration and remodeling, and formation of osteophytes. We also use this MMT model to test therapeutics (e.g. mesenchymal stromal cells, small molecules, hyaluronan, etc.) for their potential to treat osteoarthritis.
Relevance to VA:	I'm an Instructor in the Department of Orthopaedics at Emory Universit. I am WOC with Atlanta Veteran's Administration Medical Center and have laboratory space on the 5th floor Research area.