

Spring 2009 Seminar Series

Department of Biomedical Engineering

Wednesday, May 6th @ 3PM in Steinman T-402

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The Bimolecular Basis of Osteoporotic Fractures

Proteins and their post-translational modifications have been implicated in a number of diseases and age-related conditions. However, the scope of their role in osteoporosis and bone fragility remains unknown. The use of small scale biomechanics in conjunction with proteomics tools well as in vitro bone-osteoclast cultures has allowed us an unprecedented access into the mechanisms of bone fragility and fracture. This talk will present results from our recent studies in which animal models and in vitro systems are used knockout and modify select collagenous and non-collagenous bone matrix proteins in order to determine the bimolecular basis of fragility fractures and osteoclastic bone resorption.