



CANDIDATE LECTURE



*From Fluid Flow to Zebrafish:
Therapeutic Discovery for Musculoskeletal
Disorders Through Mechanobiology*

RONALD Y. KWON, PHD

Time: 12:00 pm

Date: April 25, 2012

**Location: UW Health Sciences
BB1065E, Rogge
Library**

Dr. Kwon completed his Ph.D. in Mechanical Engineering at Stanford University after a MS from Stanford and BS from University of California Berkeley. His doctoral research was funded by the National Institutes of Health on the topic of Osteocyte-independent mechanotransduction of interstitial fluid flow in bone.

Research Statement

In recent years, mechanical signals have become widely recognized as being critical to the proper functioning of numerous biological processes. This has led to the emergence of a new discipline, cellular mechanobiology, which bridges cell biology with various disciplines of mechanics and which seeks to uncover the principles by which the sensation or generation of mechanical force regulates cell function. Dr. Kwon's research interests are rooted in skeletal mechanobiology and are directed toward developing new musculoskeletal therapeutics through the use of mechanobiological processes. He has experience studying skeletal mechanotransduction in a number of model systems (including cellular, animal, and computational models of mechanotransduction), has published a number of peer-reviewed journal articles in skeletal and cellular mechanobiology. He won the Young Investigator Awards from the American Society of Bone and Mineral Research and the International Bone Fluid Flow Workshop, and has been previously funded by NIH. His lecture will focus on the therapeutic discovery for musculoskeletal disorders using the zebrafish model.